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# OM protein - protein search, using sw model

Run on: October 1, 2004, 16:31:28 ; Search time 55 Seconds  
(without alignments)  
405.841 Million cell updates/sec

Title: US-09-841-091B-20

Perfect score: 391

Sequence: 1 LELYQGIKFASQKSAKER.....NRIRNSSAANLMAKRVIR 79

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1586107 seqs, 282547505 residues

Total number of hits satisfying chosen parameters: 1586107

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : A\_Geneseq\_29Jan04:\*

- 1: Genesecp1980s:\*
- 2: Genesecp1990s:\*
- 3: Genesecp2000s:\*
- 4: Genesecp2001s:\*
- 5: Genesecp2002s:\*
- 6: Genesecp2003as:\*
- 7: Genesecp2003bs:\*
- 8: Genesecp2004s:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	380.5	97.3	428	2 AAW29102	Aaw29102 Human pep
2	380.5	97.3	428	4 AAB66630	Aab66630 Human CCK
3	380.5	97.3	428	6 ABB99727	Abb99727 Amino aci
4	380.5	97.3	428	6 ABP81805	Abp81805 Human cho
5	380.5	97.3	428	6 ABU62658	Abu62658 Human CCK
6	353.5	90.4	428	2 AAW29104	Aaw29104 Enhanced
7	316	80.8	444	2 AAR38890	Aar38890 Sequence
8	316	80.8	444	2 AAW21567	Aaw21567 LETO rat
9	316	80.8	444	4 AAB66618	Aab66618 Rat pancr
10	316	80.8	444	6 AAB62651	Abu62651 Rat pancr
11	289.5	74.0	430	2 AAR40772	Aar40772 Sequence
12	289.5	74.0	430	4 AAB66625	Aab66625 Guinea pi
13	289.5	74.0	430	6 ABU62653	Abu62653 Guinea pi
14	289.5	74.0	450	4 AAB66626	Aab66626 Guinea pi
15	289.5	74.0	450	6 ABU62654	Abu62654 Guinea pi
16	288.5	73.8	176	4 AAM15988	Aam15988 Peptide #
17	288.5	73.8	176	4 ABB34984	Abb34984 Peptide #
18	288.5	73.8	176	4 AAM28487	Aam28487 Peptide #
19	288.5	73.8	176	4 ABB29805	Abb29805 Peptide #
20	288.5	73.8	176	4 ABB20392	Abb20392 Peptide #
21	288.5	73.8	176	4 AAM68165	Aam68165 Human bon
22	288.5	73.8	176	4 AAM55791	Aam55791 Human bra
23	288.5	73.8	176	4 ABG49816	Abg49816 Human liv
24	288.5	73.8	176	4 AAM03723	Aam03723 Peptide #
25	288.5	73.8	176	5 ABG37696	Abg37696 Human pep

## ALIGNMENTS

RESULT 1

AAW29102

ID AAW29102 standard; protein; 428 AA.

XX AC AAW29102;

XX DT 11-FEB-1998 (first entry)

DE Human peptide hormone cholecystokinin (CCK) receptor A.

XX KW cholecystokinin; CCK; peptide hormone receptor; PHR; neuropeptide;

KW mutant; messenger signal; agonist; antagonist; human; treatment; tumour;

KW gastrointestinal disorder; central nervous system disorder; neurotoxin;

KW substitution; enhanced receptor; hypoglycaemia.

XX OS Homo sapiens.

XX FH Key Location/Qualifiers

FT Key Misc-difference 138

FT FT /note= "Glu at this position can be substituted to Gln (AAW29104)"

FT FT Misc-difference 303. .306

FT FT /note= "These aminoacids can be substituted by His, Val, Ser, Ala (AAW29104)"

FT FT WO9721731-Al.

XX PD 19-JUN-1997.

XX PF 11-DEC-1996; 96WO-US019958.

XX PR 11-DEC-1995; 95US-00570157.

XX PR 03-SEP-1996; 96US-00718047.

XX (NEWE-) NEW ENGLAND MEDICAL CENT HOSPITALS INC.

XX PI Kopin AS, Beinborn M;

XX DR WPI; 1997-332726/30.

XX Assay for peptide hormone receptor ligand using mutant forms of the

PT receptors - where changes in second messenger signalling activity

PT indicate that a compound is an agonist.

XX PS Disclosure; Page 54-55; 88pp; English.

XX CC This is the human peptide hormone cholecystokinin (hCCK) receptor A. A

CC mutant form of this receptor can be created by substitution of certain

CC aminoacids (AAW29104). The mutant form of this receptor can be used in a  
 CC a novel method for determining whether a candidate compound is an agonist  
 CC or an antagonist of a peptide hormone receptor (PHR). The candidate  
 CC compound is exposed to the mutant form of the PHR that has the ability to  
 CC amplify the activity of an agonist as compared to the corresponding wild-  
 CC type receptor. A change in the second messenger signalling activity of  
 CC the enhanced receptor can be measured to indicate whether the candidate  
 CC compound is an agonist or an antagonist. The agonists and antagonists can  
 CC be used for treating or preventing disorders involving PHRs. They can be  
 CC used for treating tumours, gastrointestinal disorders, depression, schizophrenia,  
 CC system disorders, neuroleptic disorders, anxiety or panic, withdrawal  
 CC disorders of appetite regulatory systems, abuse of drugs or alcohol,  
 CC stress, stroke, hypoglycaemia, cerebral palsy, spinal chord and head  
 CC injury, poisoning by neurotoxins, infertility, adenomas, obesity or  
 CC diabetes. The use of the mutant PHRs provides for the more sensitive  
 CC detection of PHR agonists or antagonists  
 XX  
 SQ Sequence 428 AA;

Query Match 97.3%; Score 380.5; DB 2; Length 428;  
 Best Local Similarity 98.8%; Pred. No. 6.9e-40;  
 Matches 79; Conservative 0; Mismatches 0; Indels 1; Gaps 1;  
 QY 1 LELYQIKFEASQKSAKERKPTSSGKYEDSDGCVL-KTRPPRKLELRQLSTGSSSRA 59  
 DB 234 LELYQIKFEASQKSAKERKPTSSGKYEDSDGCVLQKTRPPRKLELRQLSTGSSSRA 293

QY 60 NRIRNSSAANLMAKRVIR 79  
 DB 294 NRIRNSSAANLMAKRVIR 313

RESULT 2  
 AAB66630  
 ID AAB66630 standard; protein; 428 AA.

AC AAB66630;  
 DT 05-APR-2001 (first entry)  
 XX Human CCK A receptor protein.  
 DE Cholecystokinin; CCK receptor; purify.  
 XX Homo sapiens.  
 OS US6169173-B1.  
 XX 02-JAN-2001.  
 PD 10-MAR-1993; 93US-00029170.  
 PF 07-FEB-1992; 92US-00831248.  
 PR 01-APR-1992; 92US-00861769.  
 PR 11-AUG-1992; 92US-00928033.  
 PR 02-SEP-1992; 92US-00937609.

PA (USSH ) US DEPT HEALTH & HUMAN SERVICES.  
 XX Wank SA;  
 PI WPI; 2001-136725/14.  
 DR New cholecystokinin (CCK) receptor-encoding DNA molecule, useful for  
 PT producing and purifying human CCK receptor protein to sequenceable-grade  
 PT homogeneity.  
 XX Disclosure; Fig 13; 82pp; English.  
 PS The present invention relates to a cholecystokinin (CCK) receptor  
 XX protein. The CCK receptor-encoding DNA molecule is useful for expressing  
 CC and purifying CCK receptor protein to sequenceable-grade homogeneity. The

CC CCK receptor proteins or fragments are useful for obtaining antibodies  
 CC that can recognize CCK-expressing cells. The transformed eukaryotic cell  
 CC lines are useful for studying the receptor in an environment similar to  
 CC its native environment, e.g. in the context of studying the  
 CC electrophysiology or binding properties of the receptor. The transformed  
 CC prokaryotic or insect cell line is useful for expressing CCK receptor to  
 CC produce large amounts of the receptor for immunological purposes or for  
 CC studying protein structure, e.g. crystallography  
 XX  
 SQ Sequence 428 AA;

Query Match 97.3%; Score 380.5; DB 4; Length 428;  
 Best Local Similarity 98.8%; Pred. No. 6.9e-40;  
 Matches 79; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 LELYQIKFEASQKSAKERKPTSSGKYEDSDGCVL-KTRPPRKLELRQLSTGSSSRA 59  
 DB 234 LELYQIKFEASQKSAKERKPTSSGKYEDSDGCVLQKTRPPRKLELRQLSTGSSSRA 293

QY 60 NRIRNSSAANLMAKRVIR 79  
 DB 294 NRIRNSSAANLMAKRVIR 313

RESULT 3  
 ABB99727  
 ID ABB99727 standard; protein; 428 AA.

AC ABB99727;  
 DT 24-MAR-2003 (first entry)  
 XX Amino acid sequence of human cholecystokinin-A (CCK-A) receptor.

DE G protein-coupled receptor; GPCR; single cell biosensor; arrestin;  
 KW GPCR ligand; Cholecystokinin-A receptor; CCK-A.  
 XX Homo sapiens.  
 OS WO200299381-A2.  
 FN 12-DEC-2002.  
 PD 05-JUN-2002; 2002WO-US017606.  
 PF 05-JUN-2001; 2001US-0295945P.  
 PR 04-JUN-2002; 2002US-00161916.

XX (UYDU-) UNIV DUKE.  
 XX Barak LS, Shetzline MA, Oakley RH, Caron MG;  
 PI WPI; 2003-140644/13.  
 DR N-PSDB; ABE23129.

XX Novel single cell biosensor, useful for detecting G protein-coupled  
 XX receptor ligand in a sample, comprises cell overexpressing arrestin and G  
 XX protein-coupled receptor.

PS Disclosure; Fig 3F; 103pp; English.  
 XX The present sequence represents human cholecystokinin-A (CCK-A) receptor.  
 CC This receptor is a G protein-coupled receptor (GPCR) that is used to  
 CC produce a single cell biosensor of the invention. The specification  
 CC describes a single cell biosensor comprising a cell which overexpresses  
 CC arrestin and at least one GPCR, where the GPCR, the arrestin or the cell  
 CC is detectably labeled for monitoring internalisation of the GPCR. The  
 CC biosensor detects various bioactive ligand species in the sample, as  
 CC opposed to other antibody-based methods, such as radioimmunoassay, which  
 CC detects only the ligand species with the reactive epitope. The biosensor  
 CC is useful for detecting a GPCR ligand in a test sample, for monitoring a  
 CC GPCR ligand in a mammal, for detecting a compound which modulates a GPCR  
 CC ligand in a test sample, for continuous screening of GPCR ligands in a

CC test sample, and for detecting a compound that modulates GPCR  
 CC internalisation in a test sample. It is useful for altering GPCR  
 CC internalisation. It is also useful for detecting an inhibitor of  
 CC acetylcholinesterase in a test sample  
 XX  
 SQ Sequence 428 AA;

Query Match 97.3%; Score 380.5; DB 6; Length 428;  
 Best Local Similarity 98.8%; Pred. No. 6.9e-40;  
 Matches 79; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 LELYQGIKFEASQKSAKERKPTTSSGKYEDSDGCVL-KTRPPRKLELRQLSTGSSRA 59  
 |||||  
 DB 234 LELYQGIKFEASQKSAKERKPTTSSGKYEDSDGCVLQKTRPPRKLELRQLSTGSSRA 293  
 |||||  
 QY 60 NRIRNSSAANLMAKKRVIR 79  
 |||||  
 DB 294 NRIRNSSAANLMAKKRVIR 313  
 |||||

RESULT 4  
 ABP81805  
 ID ABP81805 standard; protein; 428 AA.  
 XX  
 AC ABP81805;

DT 04-MAR-2003 (first entry)

XX Human cholecystokinin A receptor protein SEQ ID NO:94.

XX G protein-coupled receptor; GPCR; antigenic peptide; gene therapy;  
 KW G protein-coupled receptor modulator; antibody; immune-related disease;  
 KW growth-related disease; cell regeneration-related disease; AIDS; cancer;  
 KW immunological-related cell proliferative disease; autoimmune disease;  
 KW Alzheimer's disease; atherosclerosis; infection; osteoarthritis; allergy;  
 KW osteoporosis; cardiomyopathy; inflammation; Crohn's disease; diabetes;  
 KW graft versus host disease; Parkinson's disease; multiple sclerosis; pain;  
 KW psoriasis; anxiety; depression; schizophrenia; dementia; memory loss;  
 KW mental retardation; epilepsy; asthma; tuberculosis; obesity; nausea;  
 KW hypertension; hypotension; renal disorder; rheumatoid arthritis; trauma;  
 KW ulcer.

XX Homo sapiens.

XX WO200261087-A2.

XX 08-AUG-2002.

XX 19-DEC-2001; 2001WO-US050107.

XX 19-DEC-2000; 2000US-0257144P.

XX (LIFE-) LIFESPAN BIOSCIENCES INC.

XX Burmer GC, Roush CL, Brown JP;

XX WPI; 2003-046718/04.

XX N-PSDB; ABZ42651.

XX New isolated antigenic peptides e.g., for G protein-coupled receptors  
 PT (GPCR), useful for diagnosing and designing drugs for treating conditions  
 PT in which GPCRs are involved, e.g. AIDS, Alzheimer's disease, cancer or  
 PT autoimmune diseases.

XX Disclosure; Fig 1; 523pp; English.

XX The present invention describes antigenic peptides (I) comprising: (a)  
 CC any one of 1601 sequences (see ABP82019 to ABP83619) of 12-24 amino  
 CC acids. Also described: (1) an assay for the detection of a particular G  
 CC protein-coupled receptor (GPCR) or a candidate polypeptide in a sample;  
 CC and (2) an isolated antibody having high specificity and high affinity or  
 CC avidity for a particular GPCR. (I) can be used as GPCR modulators and in  
 CC gene therapy. The antigenic peptides for GPCRs are useful in detecting an

CC antibody against a particular GPCR, and in the production of specific  
 CC antibodies. The peptides and antibodies are also useful for detecting the  
 CC presence or absence of corresponding GPCRs. The antigenic peptides for  
 CC GPCRs and antibodies are useful for diagnosing and designing drugs for  
 CC treating immune-related diseases, growth-related diseases, cell  
 CC regeneration-related disease, immunological-related cell proliferative  
 CC diseases, or autoimmune diseases, e.g. AIDS, Alzheimer's disease,  
 CC atherosclerosis, bacterial, fungal, protozoan or viral infections,  
 CC osteoarthritis, osteoporosis, cancer, cardiomyopathy, chronic and acute  
 CC inflammation, allergies, Crohn's disease, diabetes, graft versus host  
 CC disease, Parkinson's disease, multiple sclerosis, pain, psoriasis, memory  
 CC anxiety, depression, schizophrenia, dementia, mental retardation, memory  
 CC loss, epilepsy, asthma, tuberculosis, obesity, nausea, hypertension,  
 CC hypotension, renal disorders, rheumatoid arthritis, trauma, ulcers, or  
 CC any other disorder in which GPCRs are involved. The antibodies may be  
 CC used in immunoassays and immunodiagnosis. ABZ42523 to ABZ42869 encode  
 CC GPCR proteins given in ABP81675 to ABP82018, which are used in the  
 CC exemplification of the present invention  
 XX  
 XX Sequence 428 AA;

Query Match 97.3%; Score 380.5; DB 6; Length 428;  
 Best Local Similarity 98.8%; Pred. No. 6.9e-40;  
 Matches 79; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 LELYQGIKFEASQKSAKERKPTTSSGKYEDSDGCVL-KTRPPRKLELRQLSTGSSRA 59  
 |||||  
 DB 234 LELYQGIKFEASQKSAKERKPTTSSGKYEDSDGCVLQKTRPPRKLELRQLSTGSSRA 293  
 |||||

QY 60 NRIRNSSAANLMAKKRVIR 79  
 |||||

DB 294 NRIRNSSAANLMAKKRVIR 313  
 |||||

RESULT 5

ABU62658

ID ABU62658 standard; protein; 428 AA.

XX AC ABU62658;

XX DT 13-SEP-2003 (first entry)

XX Human CCKB receptor protein.

XX Human; CCKB; cholecystokinin receptor; immunomodulator.

XX Homo sapiens.

XX US2003052338-A1.

XX 20-MAR-2003.

XX 19-NOV-1999; 99US-00443745.

XX 07-FEB-1992; 92US-00831248.

XX 01-APR-1992; 92US-00861769.

XX 11-AUG-1992; 92US-00928033.

XX 02-SEP-1992; 92US-00937609.

XX 10-MAR-1993; 93US-00029170.

XX (WANK/) WANK S A.

XX Wank SA;

XX WPI; 2003-503641/47.

XX N-PSDB; ACD26218.

XX New isolated DNA molecule encoding a cholecystokinin (CCK) receptor  
 PT protein, useful for neuroendocrine modulation of the immune system, and  
 PT for obtaining antibodies that can recognize CCK-expressing cells.

XX Example 6; Fig 13; 83pp; English.

CC This invention relates to a novel isolated DNA molecule encoding a  
 CC cholecystokinin (CCK) receptor protein. The invention also discloses a  
 CC method for purifying a CCK receptor by solubilising a biological  
 CC preparation containing CCK receptor in 1% digitonin, applying the  
 CC solubilised receptor preparation to a cationic exchange resin and  
 CC purifying the eluate of the resin. The purified eluate is then added to  
 CC an agarose-bound lectin and applied the eluate to a cibacron blue  
 CC sepharose column and a CCK receptor protein of sequenceable-grade purity.  
 CC The CCK receptor protein of the invention may have immunomodulatory  
 CC activity. The DNA molecule of the invention is useful for purifying CCK  
 CC receptor protein to sequenceable-grade homogeneity. The CCK proteins are  
 CC useful for neuroendocrine modulation of the immune system, and for  
 CC obtaining antibodies that can recognise CCK-expressing cells. The present  
 CC sequence represents the human cholecystokinin (CCKB) receptor protein  
 CC sequence of the invention

XX Sequence 428 AA;

Query Match 97.3%; Score 380.5; DB 6; Length 428;  
 Best Local Similarity 98.8%; Pred. No. 6.9e-40;  
 Matches 79; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 LELYQIKFEASQKSAKERKPTSSGKYEDSDGCVL-KTRPPRKLELRQLSTGSSSRA 59  
 |||||  
 DB 234 LELYQIKFEASQKSAKERKPTSSGKYEDSDGCVLQKTRPPRKLELRQLSTGSSSRA 293  
 |||||

QY 60 NRIRNSSAANLMAKRVIR 79  
 |||||

DB 294 NRIRNSSAANLMAKRVIR 313  
 |||||

RESULT 6

AAW29104

ID AAW29104 standard; protein; 428 AA.

XX AAW29104;

DT 12-FEB-1998 (first entry)

XX Enhanced CCK-A/gastrin receptor MH21/35.

XX cholecystokinin; CCK; peptide hormone receptor; PHR; neuropeptide;  
 KW mutant; messenger signal; agonist; antagonist; human; treatment; tumour;  
 KW gastrointestinal disorder; central nervous system disorder; neurotoxin;  
 KW substitution; enhanced receptor; hypoglycaemia, MH21/35.

OS Homo sapiens.

XX Key Location/Qualifiers

FT Misc-difference 138  
 FT /label= E1380  
 FT /note= "wild type Glu is replaced by Gln"

FT Misc-difference 303  
 FT /label= A303H  
 FT /note= "wild type Ala is replaced by His"

FT Misc-difference 304  
 FT /label= N304V  
 FT /note= "wild type Asn is replaced by Val"

FT Misc-difference 305  
 FT /label= L305S  
 FT /note= "wild type Leu is replaced by Ser"

FT Misc-difference 306  
 FT /label= M306A  
 FT /note= "wild type Met is replaced by Ala"

XX WO9721731-A1.

PN 19-JUN-1997.

XX 11-DEC-1996; 96WO-US019958.

XX 11-DEC-1995; 95US-00570157.

PR 03-SEP-1996; 96US-00718047.

XX (NEWE-) NEW ENGLAND MEDICAL CENT HOSPITALS INC.

PA Kopin AS, Beinborn M;

PI WPI; 1997-332726/30.

XX Assay for peptide hormone receptor ligand using mutant forms of the  
 XX receptors - where changes in second messenger signalling activity  
 XX indicate that a compound is an agonist.

XX Claim 34; Page; 88pp; English.

XX This mutant CCK-A receptor M21/35 is derived from the human peptide  
 CC hormone cholecystokinin (hCCK) receptor A. This enhanced receptor MH21/35  
 CC is created by the substitution of wild type Glu to Gln at amino acid  
 CC position 138 and wild type Ala, Asn, Leu, Met to His, Val, Ser, Ala  
 CC respectively at amino acid positions 303 to 306. This mutant receptor can  
 CC be used in a novel method for determining whether a candidate compound is  
 CC an agonist or an antagonist of a peptide hormone receptor (PHR). The  
 CC candidate compound is exposed to the mutant form of the PHR that has the  
 CC ability to amplify the activity of an agonist as compared to the  
 CC corresponding wild-type receptor. A change in the second messenger  
 CC signalling activity of the enhanced receptor can be measured to indicate  
 CC whether the candidate compound is an agonist or an antagonist. The  
 CC agonists and antagonists can be used for treating or preventing disorders  
 CC involving PHRs. They can be used for treating tumours, gastrointestinal  
 CC disorders, central nervous system disorders, neuroleptic disorders,  
 CC depression, schizophrenia, disorders of appetite regulatory systems,  
 CC anxiety or panic, withdrawal response produced by chronic treatment or  
 CC abuse of drugs or alcohol, stress, stroke, hypoglycaemia, cerebral palsy,  
 CC spinal chord and head injury, poisoning by neurotoxins, infertility,  
 CC adenomas, obesity or diabetes. The use of the mutant PHRs provides for  
 CC the more sensitive detection of PHR agonists or antagonists. Note: The  
 CC present sequence does not appear in the specification; it has been made  
 CC by modifying the wild type human CCK-A receptor sequence which is  
 CC provided in pages 54-55

XX Sequence 428 AA;

Query Match 90.4%; Score 353.5; DB 2; Length 428;

Best Local Similarity 93.8%; Pred. No. 2e-36;

Matches 75; Conservative 0; Mismatches 4; Indels 1; Gaps 1;

QY 1 LELYQIKFEASQKSAKERKPTSSGKYEDSDGCVL-KTRPPRKLELRQLSTGSSSRA 59  
 |||||

DB 234 LELYQIKFEASQKSAKERKPTSSGKYEDSDGCVLQKTRPPRKLELRQLSTGSSSRA 293  
 |||||

QY 60 NRIRNSSAANLMAKRVIR 79  
 |||||

DB 294 NRIRNSSAANLMAKRVIR 313  
 |||||

RESULT 7

AAAR38890

ID AAR38890 standard; protein; 444 AA.

XX AAR38890;

XX 25-MAR-2003 (revised)

DT 07-FEB-1994 (first entry)

XX Sequence encoded by the rat pancreatic cholecystokinin (CCK) A receptor  
 DE cDNA clone.

XX Cholecystokinin receptor protein; CCK; gastrointestinal receptor.

XX Balaenoptera acutorostrata.

XX Key Location/Qualifiers

FT Modified-site 25

FT /label= glycosylation site

FT /note= "see also AAs 28,39,205"

KW diabetes mellitus; type 2 diabetes; CCK-A receptor; cholelithiasis  
KW gallstone; diagnosis; deletion; mutation; LETo rat; OLETo rat;  
KW Otsuka Long-Evans Tokushima Fatty.

```

PI Wank SA;
XX WPI; 2001-136725/14.
XX
XX
XX New cholecystokinin (CCK) receptor-encoding DNA molecule, useful for
PT producing and purifying human CCK receptor protein to sequenceable-grade
PT homogeneity.
XX
XX Disclosure; Fig 1; 82pp; English.
XX
XX The present invention relates to a cholecystokinin (CCK) receptor
CC protein. The CCK receptor-encoding DNA molecule is useful for expressing
CC and purifying CCK receptor protein to sequenceable-grade homogeneity. The
CC CCK receptor proteins or fragments are useful for obtaining antibodies
CC that can recognize CCK-expressing cells. The transformed eukaryotic cell
CC lines are useful for studying the receptor in an environment similar to
CC its native environment, e.g. in the context of studying the
CC electrophysiology or binding properties of the receptor. The transformed
CC prokaryotic or insect cell line is useful for expressing CCK receptor to
CC produce large amounts of the receptor for immunological purposes or for
CC studying protein structure, e.g. crystallography
XX
XX Sequence 444 AA;
XX
Query Match 80.8%; Score 316; DB 4; Length 444;
Best Local Similarity 82.7%; Pred. No. 1.4e-31;
Matches 67; Conservative 8; Mismatches 4; Indels 2; Gaps 2;
QY 1 LELYQIKFEASQKSAKPKSTTSGKYEDSGCYL-KTRPPRKLELRQLSTGS-SR 58
Db 249 LELYQIKFDASQKSAKPKSTTSGKYEDSGCYLQKSRPPRKLELRQLSSGGSR 308
QY 59 ANRIRNSSAANLMAKRVIR 79
Db 309 LNRIRSSSAANLIAKRVIR 329
"RESULT 10
ABU62651
ID ABU62651 standard; protein; 444 AA.
XX
XX ABU62651;
XX
XX 13-SBP-2003 (first entry)
XX
XX DE Rat pancreatic CCKA receptor protein.
XX
XX Rat; CCKA; cholecystokinin receptor; immunomodulator; receptor.
XX
XX Rattus sp.
XX
XX Key Location/Qualifiers
XX Modified-site 25 /note= "Asn is N-glycosylated"
XX Modified-site 28 /note= "Asn is N-glycosylated"
XX Modified-site 39 /note= "Asn is N-glycosylated"
XX Domain 57..82 "Transmembrane domain I"
XX Domain 93..119 /note= "Transmembrane domain II"
XX Region 111..130 /note= "Transmembrane domain III"
XX Domain 131..152 /note= "Peptide fragment obtained by CNBr cleavage or
XX Lys digestion"
XX Region 132..158 /note= "Transmembrane domain III"
XX Domain 173..193 /note= "Peptide fragment obtained by CNBr cleavage or
XX Lys digestion"
XX Modified-site 205 /note= "Transmembrane domain IV"
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FT Domain /note= "Asn is N-glycosylated"
FT 226..249
FT /note= "Transmembrane domain V"
FT 270..288
FT /note= "Peptide fragment obtained by CNBr cleavage or
FT Lys digestion"
FT 289..314
FT /note= "Peptide fragment obtained by CNBr cleavage or
FT Lys digestion"
FT 330..350
FT /note= "Transmembrane domain VI"
FT 366..389
FT /note= "Transmembrane domain VII"
FT 392..402
FT /note= "Peptide fragment obtained by CNBr cleavage or
FT Lys digestion"
XX
XX US2003055238-A1.
XX
XX 20-MAR-2003.
XX
XX 19-NOV-1999; 99US-00443745.
XX
XX 07-FEB-1992; 92US-00831248.
XX 01-APR-1992; 92US-00861769.
XX 11-AUG-1992; 92US-00928033.
XX 02-SEP-1992; 92US-00937609.
XX 10-MAR-1993; 93US-00029170.
XX
XX (WANK/) WANK S A.
XX
XX Wank SA;
XX
XX WPI: 2003-503641/47.
XX N-PSDB; ACD62651.
XX
XX New isolated DNA molecule encoding a cholecystokinin (CCK) receptor
PT protein, useful for neuroendocrine modulation of the immune system, and
PT for obtaining antibodies that can recognize CCK-expressing cells.
XX
XX Claim 17; Fig 1; 83pp; English.
XX
XX This invention relates to a novel isolated DNA molecule encoding a
CC cholecystokinin (CCK) receptor protein. The invention also discloses a
CC method for purifying a CCK receptor by solubilising a biological
CC preparation containing CCK receptor in 1% digitonin, applying the
CC solubilised receptor preparation to a cationic exchange resin and
CC purifying the eluate of the resin. The purified eluate is then added to
CC an agarose-bound lectin and applied the eluate to a cibacron blue
CC sepharose column and a CCK receptor protein of sequenceable-grade purity.
CC The CCK receptor protein of the invention may have immunomodulatory
CC activity. The DNA molecule of the invention is useful for purifying CCK
CC receptor protein to sequenceable-grade homogeneity. The CCK proteins are
CC useful for neuroendocrine modulation of the immune system, and for
CC obtaining antibodies that can recognise CCK-expressing cells. The present
CC sequence represents the rat cholecystokinin (CCKA) receptor protein of
CC the invention
XX
XX Sequence 444 AA;
XX
Query Match 80.8%; Score 316; DB 6; Length 444;
Best Local Similarity 82.7%; Pred. No. 1.4e-31;
Matches 67; Conservative 8; Mismatches 4; Indels 2; Gaps 2;
QY 1 LELYQIKFEASQKSAKPKSTTSGKYEDSGCYL-KTRPPRKLELRQLSTGS-SR 58
Db 249 LELYQIKFDASQKSAKPKSTTSGKYEDSGCYLQKSRPPRKLELRQLSSGGSR 308
QY 59 ANRIRNSSAANLMAKRVIR 79
Db 309 LNRIRSSSAANLIAKRVIR 329

```

RESULT 11  
 AAR40772 ID AAR40772 standard; protein; 430 AA.  
 AC  
 XX  
 AC AAR40772;  
 XX  
 DT 25-MAR-2003 (revised)  
 DT 07-FEB-1994 (first entry)  
 XX  
 XX  
 DE Sequence encoded by the cholecystokinin (CCK) A receptor cDNA in guinea  
 DE pig gallbladder and pancreas.  
 XX  
 KW Cholecystokinin receptor protein; CCK; gastrointestinal receptor.  
 XX  
 OS Cavia porcellus.  
 XX  
 PH Key Location/Qualifiers  
 FT Modified-site 10  
 FT /label= glycosylation  
 FT /note= "see also AAs 12,24,190"  
 FT Domain 44..67  
 FT /label= transmembrane domain I  
 FT Domain 80..103  
 FT /label= II  
 FT Domain 118..137  
 FT /label= III  
 FT Domain 158..179  
 FT /label= IV  
 FT Domain 211..234  
 FT /label= V  
 FT Modified-site 249  
 FT /label= Phosphorylation  
 FT /note= "see also AAs 256,274,292,300,414,416,419"  
 FT Domain 316..336  
 FT /label= VI  
 FT Domain 335..374  
 FT /label= VII  
 FT Modified-site 411  
 FT /label= phosphorylation  
 XX W09316182-A1.  
 XX  
 XX 19-AUG-1993.  
 XX  
 XX 28-JAN-1993; 93WO-US000466.  
 XX  
 PR 07-FEB-1992; 92US-00831248.  
 PR 01-APR-1992; 92US-00861769.  
 PR 11-AUG-1992; 92US-00928033.  
 PR 02-SEP-1992; 92US-00937609.  
 XX  
 PA (USSH ) US DEPT HEALTH & HUMAN SERVICE.  
 XX  
 PI Wank SA;  
 XX  
 DR WPI; 1993-272886/34.  
 DR N-PSDB; AAQ47669.  
 XX  
 PT Isolated DNA molecule encoding cholecystokinin receptor protein - are  
 PT purified to isolate cholecystokinin receptor clones and produce anti-  
 PT cholecystokinin receptor antibodies.  
 XX  
 PS Example; Fig 6; 110pp; English.  
 XX  
 CC The rat pancreatic CCK A receptor cDNA clone encodes a protein with 7  
 CC transmembrane domains, and homology with other G-protein receptor  
 CC superfamily members. There are 4 potential sites of N-linked  
 CC glycosylation and sites for serine and threonine phosphorylation.  
 CC (Updated on 25-MAR-2003 to correct PN field.)  
 XX  
 XX Sequence 430 AA;  
 SQ

Best Local Similarity 79.3%; Pred. No. 3.3e-28;  
 Matches 65; Conservative 4; Mismatches 10; Indels 3; Gaps 2;  
 QY 1 LELYQGIKFEASQKSAKERKPTSTSSGKYEDSDGCVL-KTRPPRKLELRQLSTGS--SS 57  
 DB 234 LELYQGIKFDATQKSAKERKTSTSGGPMEDSDGCVLQKSRHPRKLELRQLSPSSSGSN 293  
 QY 58 RANRIRSNSSAANLMAKRVIR 79  
 DB 294 RINRIRSSSTANLMAKRVIR 315  
 RESULT 12  
 AAB66625 ID AAB66625 standard; protein; 430 AA.  
 AC  
 XX AAB66625;  
 XX  
 DT 05-APR-2001 (first entry)  
 XX  
 DE Guinea pig CCKA receptor protein.  
 XX  
 KW Cholecystokinin; CCK receptor; purify.  
 XX  
 OS Cavia sp.  
 XX  
 PN US6169173-B1.  
 XX  
 PD 02-JAN-2001.  
 XX  
 PF 10-MAR-1993; 93US-00029170.  
 PR 01-FEB-1992; 92US-00831248.  
 PR 01-APR-1992; 92US-00861769.  
 PR 11-AUG-1992; 92US-00928033.  
 PR 02-SEP-1992; 92US-00937609.  
 XX  
 PA (USSH ) US DEPT HEALTH & HUMAN SERVICES.  
 XX  
 PI Wank SA;  
 XX  
 DR WPI; 2001-136725/14.  
 XX  
 PT New cholecystokinin (CCK) receptor-encoding DNA molecule, useful for  
 PT producing and purifying human CCK receptor protein to sequenceable-grade  
 PT homogeneity.  
 XX  
 PS Disclosure; Fig 6; 82pp; English.  
 XX  
 CC The present invention relates to a cholecystokinin (CCK) receptor  
 CC protein. The CCK receptor-encoding DNA molecule is useful for expressing  
 CC and purifying CCK receptor protein to sequenceable-grade homogeneity. The  
 CC CCK receptor proteins or fragments are useful for obtaining antibodies  
 CC that can recognize CCK-expressing cells. The transformed eukaryotic cell  
 CC lines are useful for studying the receptor in an environment similar to  
 CC its native environment, e.g. in the context of studying the  
 CC electrophysiology or binding properties of the receptor. The transformed  
 CC prokaryotic or insect cell line is useful for expressing CCK receptor to  
 CC produce large amounts of the receptor for immunological purposes or for  
 CC studying protein structure, e.g. crystallography  
 XX  
 SQ Sequence 430 AA;  
 Query Match 74.0%; Score 289.5; DB 4; Length 430;  
 Best Local Similarity 79.3%; Pred. No. 3.3e-28;  
 Matches 65; Conservative 4; Mismatches 10; Indels 3; Gaps 2;  
 QY 1 LELYQGIKFEASQKSAKERKPTSTSSGKYEDSDGCVL-KTRPPRKLELRQLSTGS--SS 57  
 DB 234 LELYQGIKFDATQKSAKERKTSTSGGPMEDSDGCVLQKSRHPRKLELRQLSPSSSGSN 293  
 QY 58 RANRIRSNSSAANLMAKRVIR 79  
 DB 294 RINRIRSSSTANLMAKRVIR 315  
 Query Match 74.0%; Score 289.5; DB 4; Length 430;  
 Best Local Similarity 79.3%; Pred. No. 3.3e-28;  
 Matches 65; Conservative 4; Mismatches 10; Indels 3; Gaps 2;  
 QY 1 LELYQGIKFEASQKSAKERKPTSTSSGKYEDSDGCVL-KTRPPRKLELRQLSTGS--SS 57  
 DB 234 LELYQGIKFDATQKSAKERKTSTSGGPMEDSDGCVLQKSRHPRKLELRQLSPSSSGSN 293  
 QY 58 RANRIRSNSSAANLMAKRVIR 79  
 DB 294 RINRIRSSSTANLMAKRVIR 315

Db 294 RINRIRSSSTANLMAKRVIR 315

RESULT 13

ABU62653

ID ABU62653 standard; protein; 430 AA.

XX AC ABU62653;

XX DT 13-SEP-2003 (first entry)

XX DE Guinea pig CCKA receptor protein.

XX KW Guinea pig; CCKA; cholecystokinin receptor; immunomodulator.

XX OS Cavia sp.

XX FH Key

FT Modified-site 10 Location/Qualifiers

FT Modified-site 13 /note= "Asn is N-glycosylated"

FT Modified-site 24 /note= "Asn is N-glycosylated"

FT Domain 43. .67 /note= "Asn is N-glycosylated"

FT Domain 80. .103 /note= "Transmembrane domain I"

FT Domain 118. .135 /note= "Transmembrane domain II"

FT Domain 158. .179 /note= "Transmembrane domain III"

FT Modified-site 190 /note= "Transmembrane domain IV"

FT Domain 211. .234 /note= "Asn is N-glycosylated"

FT Modified-site 249 /note= "Transmembrane domain V"

FT Modified-site 256 /note= "Serine phosphorylation site"

FT Modified-site 274 /note= "Serine phosphorylation site"

FT Modified-site 292 /note= "Serine phosphorylation site"

FT Modified-site 300 /note= "Serine phosphorylation site"

FT Domain 316. .336 /note= "Serine phosphorylation site"

FT Domain 351. .374 /note= "Transmembrane domain V"

FT Modified-site 411 /note= "Transmembrane domain V"

FT Modified-site 414 /note= "Threonine phosphorylation site"

FT Modified-site 416 /note= "Serine phosphorylation site"

FT Modified-site 419 /note= "Serine phosphorylation site"

FT Modified-site 419 /note= "Serine phosphorylation site"

XX US200305238-A1.

XX PD 20-MAR-2003.

XX PF 19-NOV-1999; 99US-00443745.

XX PR 07-FEB-1992; 92US-00831248.

XX PR 01-APR-1992; 92US-00861769.

XX PR 11-AUG-1992; 92US-00928033.

XX PR 02-SEP-1992; 92US-00937609.

XX PR 10-MAR-1993; 93US-00029170.

XX PA (WANK/) WANK S A.

XX DR

XX XX

PI Wank SA;

XX WPI; 2003-503641/47.

DR N-PSDB; ACD26215.

XX

PT New isolated DNA molecule encoding a cholecystokinin (CCK) receptor protein, useful for neuroendocrine modulation of the immune system, and for obtaining antibodies that can recognize CCK-expressing cells.

XX

PS Example 3; Fig 6; 83pp; English.

XX

CC This invention relates to a novel isolated DNA molecule encoding a cholecystokinin (CCK) receptor protein. The invention also discloses a method for purifying a CCK receptor by solubilising a biological preparation containing CCK receptor in 1% digitonin, applying the solubilised receptor preparation to a cationic exchange resin and purifying the eluate of the resin. The purified eluate is then added to an agarose-bound lectin and applied the eluate to a cibacron blue sepharose column and a CCK receptor protein of sequenceable-grade purity. The CCK receptor protein of the invention may have immunomodulatory activity. The DNA molecule of the invention is useful for purifying CCK receptor protein to sequenceable-grade homogeneity. The CCK proteins are useful for neuroendocrine modulation of the immune system, and for obtaining antibodies that can recognise CCK-expressing cells. The present sequence represents the guinea pig cholecystokinin (CCKA) receptor protein sequence of the invention

XX Sequence 430 AA;

SQ

Query Match 74.0%; Score 289.5; DB 6; Length 430;

Best Local Similarity 79.3%; Pred. No. 3.3e-28;

Matches 65; Conservative 4; Mismatches 10; Indels 3; Gaps 2;

QY 1 LELYQIKFEASQKSAKERKPTSTSSCKYEDSDCCYL-KTRPPKLELRQLSTGS--SS 57

DB 234 LELYQIKFEADIQKSAKERKTSTSSGPMEDSDCYLQKSRHPRKLELRQLSPSSGSN 293

QY 58 RANRIRSSSTANLMAKRVIR 79

DB 294 RINRIRSSSTANLMAKRVIR 315

RESULT 14

AAB66626

ID AAB66626 standard; protein; 450 AA.

XX AC AAB66626;

XX DT 05-APR-2001 (first entry)

XX DE Guinea pig CCKA receptor protein #2.

XX KW Cholecystokinin; CCK receptor; purify.

XX OS Cavia sp.

XX PN US6169173-B1.

XX PD 02-JAN-2001.

XX PF 10-MAR-1993; 93US-00029170.

XX PR 07-FEB-1992; 92US-00831248.

XX PR 01-APR-1992; 92US-00861769.

XX PR 11-AUG-1992; 92US-00928033.

XX PR 02-SEP-1992; 92US-00937609.

XX PA (USSH ) US DEPT HEALTH & HUMAN SERVICES.

XX PI Wank SA;

XX DR WPI; 2001-136725/14.

XX XX



PT New cholecystokinin (CCK) receptor-encoding DNA molecule, useful for  
PT producing and purifying human CCK receptor protein to sequenceable-grade  
PT homogeneity.

XX Disclosure; Fig 7; 82pp; English.

XX The present invention relates to a cholecystokinin (CCK) receptor  
CC protein. The CCK receptor-encoding DNA molecule is useful for expressing  
CC and purifying CCK receptor protein to sequenceable-grade homogeneity. The  
CC CCK receptor proteins or fragments are useful for obtaining antibodies  
CC that can recognize CCK-expressing cells. The transformed eukaryotic cell  
CC lines are useful for studying the receptor in an environment similar to  
CC its native environment, e.g. in the context of studying the  
CC electrophysiology or binding properties of the receptor. The transformed  
CC prokaryotic or insect cell line is useful for expressing CCK receptor to  
CC produce large amounts of the receptor for immunological purposes or for  
CC studying protein structure, e.g. crystallography

XX Sequence 450 AA;

Query Match 74.0%; Score 289.5; DB 4; Length 450;  
Best Local Similarity 79.3%; Pred. No. 3.5e-28;  
Matches 65; Conservative 4; Mismatches 10; Indels 3; Gaps 2;

OY 1 LELYQGIKFEASQKSAKRPSTTSGKYEDSDGCVL-KTRPPRKLRLQLSTGS--SS 57  
Db 254 LELYQGIKFDALQKSAKERTSTGSGPMEDSDGCVLQKSRHPRKLELRQLSPSSSGSN 313

OY 58 RANRIRSSSSAANLMAKKRVIR 79  
Db 314 RINRIRSSSSSTANLMAKKRVIR 335

RESULT 15

ABU62654  
ID ABU62654 standard; protein; 450 AA.

XX ABU62654;

XX 13-SEP-2003 (first entry)

XX Guinea pig CCKA receptor protein #2.

XX Guinea pig; CCKA; cholecystokinin receptor; immunomodulator.

XX Cavia sp.

Key	Location/Qualifiers
FT Domain	64..87
FT Domain	/note= "Transmembrane domain I"
FT Domain	100..123
FT Domain	/note= "Transmembrane domain II"
FT Domain	138..157
FT Domain	/note= "Transmembrane domain III"
FT Domain	178..200
FT Domain	/note= "Transmembrane domain IV"
FT Domain	231..254
FT Domain	/note= "Transmembrane domain V"
FT Domain	336..356
FT Domain	/note= "Transmembrane domain V"
FT Domain	370..393
FT Domain	/note= "Transmembrane domain V"

PN US2003055238-A1.

XX 20-MAR-2003.

XX 19-NOV-1999; 99US-00443745.

XX 07-FEB-1992; 92US-00831248.

XX 01-APR-1992; 92US-00861769.

XX 11-AUG-1992; 92US-00928033.

XX 02-SEP-1992; 92US-00937609.

PR 10-MAR-1993; 93US-00029170.

XX (WANK/) WANK S A.

XX Wank SA;

XX WPI; 2003-503641/47.

XX New isolated DNA molecule encoding a cholecystokinin (CCK) receptor  
PT protein, useful for neuroendocrine modulation of the immune system, and  
PT for obtaining antibodies that can recognize CCK-expressing cells.

XX Disclosure; Fig 7; 83pp; English.

XX This invention relates to a novel isolated DNA molecule encoding a  
CC cholecystokinin (CCK) receptor protein. The invention also discloses a  
CC method for purifying a CCK receptor by solubilising a biological  
CC preparation containing CCK receptor in 1% digitonin, applying the  
CC solubilised receptor preparation to a cationic exchange resin and  
CC purifying the eluate of the resin. The purified eluate is then added to  
CC an agarose-bound lectin and applied the eluate to a cibacron blue  
CC sepharose column and a CCK receptor protein of sequenceable-grade purity.  
CC The CCK receptor protein of the invention may have immunomodulatory  
CC activity. The DNA molecule of the invention is useful for purifying CCK  
CC receptor protein to sequenceable-grade homogeneity. The CCK proteins are  
CC useful for neuroendocrine modulation of the immune system, and for  
CC obtaining antibodies that can recognise CCK-expressing cells. The present  
CC sequence represents the guinea pig cholecystokinin (CCKA) receptor  
CC protein sequence of the invention

XX Sequence 450 AA;

Query Match 74.0%; Score 289.5; DB 6; Length 450;  
Best Local Similarity 79.3%; Pred. No. 3.5e-28;  
Matches 65; Conservative 4; Mismatches 10; Indels 3; Gaps 2;

OY 1 LELYQGIKFEASQKSAKRPSTTSGKYEDSDGCVL-KTRPPRKLRLQLSTGS--SS 57  
Db 254 LELYQGIKFDALQKSAKERTSTGSGPMEDSDGCVLQKSRHPRKLELRQLSPSSSGSN 313

OY 58 RANRIRSSSSAANLMAKKRVIR 79

Db 314 RINRIRSSSSSTANLMAKKRVIR 335

Search completed: October 1, 2004, 16:36:45  
Job time : 59 secs

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1	380.5	97.3	428	1	US-08-570-157-5	Sequence 5, Appli
2	380.5	97.3	428	3	US-08-029-170-31	Sequence 31, Appli
3	380.5	97.3	428	4	US-09-076-510-5	Sequence 5, Appli
4	380.5	97.3	428	4	US-09-004-349-5	Sequence 5, Appli
5	316	80.8	443	1	US-08-570-157-6	Sequence 6, Appli
6	316	80.8	443	4	US-09-076-510-6	Sequence 6, Appli
7	316	80.8	443	4	US-09-004-349-6	Sequence 6, Appli
8	316	80.8	444	1	US-07-937-609-14	Sequence 14, Appli
9	316	80.8	444	3	US-08-029-170-14	Sequence 14, Appli
10	289.5	74.0	430	1	US-07-937-609-23	Sequence 23, Appli
11	289.5	74.0	430	2	US-08-919-624-3	Sequence 3, Appli
12	289.5	74.0	430	3	US-08-029-170-23	Sequence 23, Appli
13	289.5	74.0	450	1	US-07-937-609-24	Sequence 24, Appli
14	289.5	74.0	450	3	US-08-029-170-24	Sequence 24, Appli
15	151	38.6	453	1	US-08-570-157-7	Sequence 7, Appli
16	151	38.6	453	4	US-09-076-510-7	Sequence 7, Appli
17	151	38.6	453	4	US-09-004-349-7	Sequence 7, Appli
18	112	28.6	447	1	US-07-937-609-29	Sequence 29, Appli
19	112	28.6	447	1	US-07-378-892A-6	Sequence 6, Appli
20	112	28.6	447	3	US-08-029-170-29	Sequence 29, Appli
21	111.5	28.5	448	1	US-08-570-157-3	Sequence 3, Appli
22	111.5	28.5	448	4	US-09-076-510-3	Sequence 3, Appli
23	111.5	28.5	448	4	US-09-004-349-3	Sequence 3, Appli
24	102	26.1	453	1	US-07-937-609-26	Sequence 26, Appli
25	102	26.1	453	3	US-08-029-170-26	Sequence 26, Appli
26	101.5	26.0	449	1	US-08-570-157-1	Sequence 1, Appli
27	101.5	26.0	449	4	US-09-076-510-1	Sequence 1, Appli

QY 60 NRIRNSSAANLMAKRVIR 79  
Db 294 NRIRNSSAANLMAKRVIR 313

## RESULT 2

US-08-029-170-31  
; Sequence 31, Application US/08029170  
; Patent No. 6169173  
; GENERAL INFORMATION:  
; APPLICANT: WANK, Stephen A.  
; TITLE OF INVENTION: CLONING AND FUNCTIONAL EXPRESSION OF  
; TITLE OF INVENTION: CHOLECYSTOKININ RECEPTOR-ENCODING DNA  
; NUMBER OF SEQUENCES: 32  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Foley & Lardner  
; STREET: 1800 Diagonal Road, Suite 500  
; CITY: Alexandria  
; STATE: VA  
; COUNTRY: USA  
; ZIP: 22313-0299  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: Patentin Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/029,170  
; FILING DATE: 19930310  
; CLASSIFICATION: 435  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/937,609  
; FILING DATE: 02-SEP-1992  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/928,033  
; FILING DATE: 11-AUG-1992  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/861,769  
; FILING DATE: 01-APR-1992  
; APPLICATION DATA:  
; APPLICATION NUMBER: US 07/831,248  
; FILING DATE: 07-FEB-1992  
; ATTORNEY/AGENT INFORMATION:  
; NAME: BENT, Stephen A.  
; REGISTRATION NUMBER: 29,768  
; REFERENCE/DOCKET NUMBER: 40399/166 NIHD  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (703)836-9300  
; TELEFAX: (703)683-4109  
; TELEX: 899149  
; INFORMATION FOR SEQ ID NO: 31:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 428 amino acids  
; TYPE: AMINO ACID  
; TOPOLOGY: linear  
; MOLECULE TYPE: protein  
US-08-029-170-31

Query Match 97.3%; Score 380.5; DB 3; Length 428;  
Best Local Similarity 98.8%; Pred. No. 3.2e-39;  
Matches 79; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 LELYQIKFASQKS AKERKPTSSGKYEDSDGCVL-KTRPPRKLELRQLSTGSSRA 59  
Db 234 LELYQIKFASQKS AKERKPTSSGKYEDSDGCVLQKTRPPRKLELRQLSTGSSRA 293  
QY 60 NRIRNSSAANLMAKRVIR 79  
Db 294 NRIRNSSAANLMAKRVIR 313

## RESULT 3

US-09-076-510-5  
; Sequence 5, Application US/09076510  
; Patent No. 6376198  
; GENERAL INFORMATION:  
; APPLICANT: Kopin, Alan S.  
; APPLICANT: Beinborn, Martin  
; TITLE OF INVENTION: ASSAY FOR NON-PEPTIDE AGONISTS TO  
; TITLE OF INVENTION: PEPTIDE HORMONE RECEPTORS  
; NUMBER OF SEQUENCES: 23  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Clark & Elbing LLP  
; STREET: 176 Federal Street  
; CITY: Boston  
; STATE: MA  
; COUNTRY: USA  
; ZIP: 02110  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: FastSeq version 2.0  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/09/076,510  
; FILING DATE: 12 MAY 1998  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: 08/570,157  
; FILING DATE: 11-DEC-1995  
; CLASSIFICATION:  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Clark, Paul T.  
; REGISTRATION NUMBER: 30,162  
; REFERENCE/DOCKET NUMBER: 00398/109002  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: 617/428-0200  
; TELEFAX: 617/438-7045  
; TELEX:  
; INFORMATION FOR SEQ ID NO: 5:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 428 amino acids  
; TYPE: amino acid  
; STRANDEDNESS: not relevant  
; TOPOLOGY: linear  
; MOLECULE TYPE: protein  
US-09-076-510-5

Query Match 97.3%; Score 380.5; DB 4; Length 428;  
Best Local Similarity 98.8%; Pred. No. 3.2e-39;  
Matches 79; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 LELYQIKFASQKS AKERKPTSSGKYEDSDGCVL-KTRPPRKLELRQLSTGSSRA 59  
Db 234 LELYQIKFASQKS AKERKPTSSGKYEDSDGCVLQKTRPPRKLELRQLSTGSSRA 293  
QY 60 NRIRNSSAANLMAKRVIR 79  
Db 294 NRIRNSSAANLMAKRVIR 313

## RESULT 4

US-09-004-349-5  
; Sequence 5, Application US/09004349A  
; Patent No. 6566080  
; GENERAL INFORMATION:  
; APPLICANT: Kopin, Alan S.  
; APPLICANT: Beinborn, Martin  
; TITLE OF INVENTION: ASSAY FOR AND USES OF PEPTIDE HORMONE  
; TITLE OF INVENTION: RECEPTOR AGONISTS  
; FILE REFERENCE: 00398/118002  
; CURRENT APPLICATION NUMBER: US/09/004,349A  
; CURRENT FILING DATE: 1998-01-08  
; EARLIER APPLICATION NUMBER: 08/570,157  
; EARLIER FILING DATE: 1995-12-11  
; NUMBER OF SEQ ID NOS: 23



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; CURRENT FILING DATE: 1998-01-08
; EARLIER APPLICATION NUMBER: 08/570,157
; EARLIER FILING DATE: 1995-12-11
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 6
; LENGTH: 443
; TYPE: PRT
; ORGANISM: Rattus norvegicus
US-09-004-349-6

Query Match      80.8%; Score 316; DB 4; Length 443;
Best Local Similarity 82.7%; Pred. No. 3.6e-31;
Matches 67; Conservative 8; Mismatches 4; Indels 2; Gaps 2;

Qy 1 LELYQGIKFEASOKSAKERKPTSTSSGKYEDSDGCVL-KTRPPRKLELRQLSTGS-SSR 58
Db 248 LELYQGIKFDASOKSAKEKPTSGSTRYEDSDGCVLQKSRPPRKLELRQLSSGGSGSR 307

Qy 59 ANRIRSSSAANLMAKRVIR 79
Db 308 LNRIRSSSAANLIAKRVIR 328

RESULT 8
US-07-937-609-14
; Sequence 14, Application US/07937609
; Patent No. 5319073
; GENERAL INFORMATION:
; APPLICANT: WANK, Stephen A.
; TITLE OF INVENTION: CLONING AND FUNCTIONAL EXPRESSION OF
; TITLE OF INVENTION: CHOLECYSTOKININ RECEPTOR-ENCODING DNA
; NUMBER OF SEQUENCES: 29
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Foley & Lardner
; STREET: 1800 Diagonal Road, Suite 500
; CITY: Alexandria
; STATE: VA
; COUNTRY: USA
; ZIP: 22313-0299
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/937,609
; FILING DATE: 19920902
; CLASSIFICATION: 436
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/831,248
; FILING DATE: 07-FEB-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/861,769
; FILING DATE: 01-APR-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/928,033
; FILING DATE: 11-AUG-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: BENT, Stephen A.
; REGISTRATION NUMBER: 29,768
; REFERENCE/DOCKET NUMBER: 40399/166 NIHD
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (703)836-9300
; TELEFAX: (703)683-4109
; TELEX: 899149
; INFORMATION FOR SEQ ID NO: 14:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 444 amino acids
; TYPE: AMINO ACID
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-07-937-609-14

Qy 1 LELYQGIKFEASOKSAKERKPTSTSSGKYEDSDGCVL-KTRPPRKLELRQLSTGS-SSR 58
Db 248 LELYQGIKFDASOKSAKEKPTSGSTRYEDSDGCVLQKSRPPRKLELRQLSSGGSGSR 307

Qy 59 ANRIRSSSAANLMAKRVIR 79
Db 308 LNRIRSSSAANLIAKRVIR 328

RESULT 9
US-08-029-170-14
; Sequence 14, Application US/08029170
; Patent No. 6169173
; GENERAL INFORMATION:
; APPLICANT: WANK, Stephen A.
; TITLE OF INVENTION: CLONING AND FUNCTIONAL EXPRESSION OF
; TITLE OF INVENTION: CHOLECYSTOKININ RECEPTOR-ENCODING DNA
; NUMBER OF SEQUENCES: 32
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Foley & Lardner
; STREET: 1800 Diagonal Road, Suite 500
; CITY: Alexandria
; STATE: VA
; COUNTRY: USA
; ZIP: 22313-0299
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/029,170
; FILING DATE: 19930310
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/937,609
; FILING DATE: 02-SEP-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/928,033
; FILING DATE: 11-AUG-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/861,769
; FILING DATE: 01-APR-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/831,248
; FILING DATE: 07-FEB-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: BENT, Stephen A.
; REGISTRATION NUMBER: 29,768
; REFERENCE/DOCKET NUMBER: 40399/166 NIHD
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (703)836-9300
; TELEFAX: (703)683-4109
; TELEX: 899149
; INFORMATION FOR SEQ ID NO: 14:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 444 amino acids
; TYPE: AMINO ACID
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-029-170-14

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Db 248 LELYQGIKFDASOKSAKEKPTSGSTRYEDSDGCVLQKSRPPRKLELRQLSSGGSGSR 308

Qy 59 ANRIRSSSAANLMAKRVIR 79
Db 309 LNRIRSSSAANLIAKRVIR 329
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Db 309 LNRIRSSSSAANLAKRVIR 329

RESULT 10  
US-07-937-609-23  
; Sequence 23, Application US/07937609  
; Patent No. 5319073  
; GENERAL INFORMATION:  
; APPLICANT: WANK, Stephen A.  
; TITLE OF INVENTION: CLONING AND FUNCTIONAL EXPRESSION OF  
; TITLE OF INVENTION: CHOLECYSTOKININ RECEPTOR-ENCODING DNA  
; NUMBER OF SEQUENCES: 29  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Foley & Lardner  
; STREET: 1800 Diagonal Road, Suite 500  
; CITY: Alexandria  
; STATE: VA  
; COUNTRY: USA  
; ZIP: 22313-0299  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
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; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: PatentIn Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/07/937,609  
; FILING DATE: 19920902  
; CLASSIFICATION: 436  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/831,248  
; FILING DATE: 07-FEB-1992  
; APPLICATION DATA:  
; APPLICATION NUMBER: US 07/861,769  
; FILING DATE: 01-APR-1992  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/928,033  
; FILING DATE: 11-AUG-1992  
; ATTORNEY/AGENT INFORMATION:  
; NAME: BENT, Stephen A.  
; REGISTRATION NUMBER: 29,768  
; REFERENCE/DOCKET NUMBER: 40399/166 NIHD  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (703)836-9300  
; TELEFAX: (703)683-4109  
; TELEX: 899149  
; INFORMATION FOR SEQ ID NO: 23:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 430 amino acids  
; TYPE: AMINO ACID  
; TOPOLOGY: linear  
; MOLECULE TYPE: protein  
US-07-937-609-23  
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Best Local Similarity 79.3%; Pred. No. 6.9e-28;  
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Db 234 LELYQGIKFDALQKSAKERTGTSGSGPMEDSDGCVLQKSRPKLELRQLSPSSSGSN 293  
Qy 58 RANRIRNSSAANLMAKRVIR 79  
Db 294 RINRIRSSSSAANLMAKRVIR 315  
RESULT 11  
US-08-919-624-3  
; Sequence 3, Application US/08919624

; Patent No. 5994097  
; GENERAL INFORMATION:  
; APPLICANT: Lal, Preeti  
; APPLICANT: Shah, Purvi  
; APPLICANT: Guegler, Karl J.  
; APPLICANT: Corley, Neil C.  
; TITLE OF INVENTION: NEW HUMAN G-PROTEIN COUPLED  
; TITLE OF INVENTION: RECEPTOR  
; NUMBER OF SEQUENCES: 4  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Incyte Pharmaceuticals, Inc.  
; STREET: 3174 Porter Dr.  
; CITY: Palo Alto  
; STATE: CA  
; COUNTRY: USA  
; ZIP: 94304  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Diskette  
; COMPUTER: IBM Compatible  
; OPERATING SYSTEM: DOS  
; SOFTWARE: FastSeq for Windows Version 2.0  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/919,624  
; FILING DATE: Filed Herewith  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER:  
; FILING DATE:  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Billings, Lucy J.  
; REGISTRATION NUMBER: 36,749  
; REFERENCE/DOCKET NUMBER: PP-0377 US  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: 415-855-0555  
; TELEFAX: 415-845-4166  
; INFORMATION FOR SEQ ID NO: 3:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 430 amino acids  
; TYPE: amino acid  
; STRANDEDNESS: single  
; TOPOLOGY: linear  
; IMMEDIATE SOURCE:  
; LIBRARY: GenBank  
; CLONE: 544724  
US-08-919-624-3  
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Best Local Similarity 79.3%; Pred. No. 6.9e-28;  
Matches 65; Conservative 4; Mismatches 10; Indels 3; Gaps 2;  
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Db 234 LELYQGIKFDALQKSAKERTGTSGSGPMEDSDGCVLQKSRPKLELRQLSPSSSGSN 293  
Qy 58 RANRIRNSSAANLMAKRVIR 79  
Db 294 RINRIRSSSSAANLMAKRVIR 315  
RESULT 12  
US-08-029-170-23  
; Sequence 23, Application US/08029170  
; Patent No. 6169173  
; GENERAL INFORMATION:  
; APPLICANT: WANK, Stephen A.  
; TITLE OF INVENTION: CLONING AND FUNCTIONAL EXPRESSION OF  
; TITLE OF INVENTION: CHOLECYSTOKININ RECEPTOR-ENCODING DNA  
; NUMBER OF SEQUENCES: 32  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Foley & Lardner  
; STREET: 1800 Diagonal Road, Suite 500  
; CITY: Alexandria  
; STATE: VA  
; COUNTRY: USA

ZIP: 22313-0299  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent In Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/029,170  
FILING DATE: 19930310  
CLASSIFICATION: 435  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/937,609  
FILING DATE: 02-SEP-1992  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/928,033  
FILING DATE: 11-AUG-1992  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/861,769  
FILING DATE: 01-APR-1992  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/831,248  
FILING DATE: 07-FEB-1992  
ATTORNEY/AGENT INFORMATION:  
NAME: BENT, Stephen A.  
REGISTRATION NUMBER: 29,768  
REFERENCE/DOCKET NUMBER: 40399/166 NIHD  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (703)836-9300  
TELEFAX: (703)683-4109  
TELEX: 899149  
INFORMATION FOR SEQ ID NO: 23:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 430 amino acids  
TYPE: AMINO ACID  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
US-08-029-170-23  
Query Match 74.0%; Score 289.5; DB 3; Length 430;  
Best Local Similarity 79.3%; Pred. No. 6.9e-28;  
Matches 65; Conservative 4; Mismatches 10; Indels 3; Gaps 2;  
QY 1 LELYQGIKFEASOKKSAKERKPSITSSGKYEDSDGCVL-KTRPPRKLELRQLSTGS--SS 57  
Db 234 LELYQGIKFDALQKSAKERKTSTGSSGPMEDSDGCVLYQKSRHPKRLQLSPSSSGSN 293  
QY 58 RANRIRSSAANLMAKKRVIR 79  
Db 294 RINRIRSSSTANLMAKKRVIR 315  
RESULT 13  
US-07-937-609-24  
Sequence 24, Application US/07937609  
Patent No. 5319073  
GENERAL INFORMATION:  
APPLICANT: WANK, Stephen A.  
TITLE OF INVENTION: CLONING AND FUNCTIONAL EXPRESSION OF  
TITLE OF INVENTION: CHOLECYSTOKININ RECEPTOR-ENCODING DNA  
NUMBER OF SEQUENCES: 29  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Foley & Lardner  
STREET: 1800 Diagonal Road, Suite 500  
CITY: Alexandria  
STATE: VA  
COUNTRY: USA  
ZIP: 22313-0299  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent In Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/07/937,609  
FILING DATE: 19920902  
CLASSIFICATION: 436  
PRIOR APPLICATION DATA:  
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FILING DATE: 07-FEB-1992  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/861,769  
FILING DATE: 01-APR-1992  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/928,033  
FILING DATE: 11-AUG-1992  
ATTORNEY/AGENT INFORMATION:  
NAME: BENT, Stephen A.  
REGISTRATION NUMBER: 29,768  
REFERENCE/DOCKET NUMBER: 40399/166 NIHD  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (703)836-9300  
TELEFAX: (703)683-4109  
TELEX: 899149  
INFORMATION FOR SEQ ID NO: 24:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 450 amino acids  
TYPE: AMINO ACID  
TOPOLOGY: linear  
IMMEDIATE SOURCE:  
CLONE: guinea pig CCKA receptor  
US-07-937-609-24  
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Best Local Similarity 79.3%; Pred. No. 7.3e-28;  
Matches 65; Conservative 4; Mismatches 10; Indels 3; Gaps 2;  
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Db 254 LELYQGIKFDALQKSAKERKTSTGSSGPMEDSDGCVLYQKSRHPKRLQLSPSSSGSN 313  
QY 58 RANRIRSSAANLMAKKRVIR 79  
Db 314 RINRIRSSSTANLMAKKRVIR 335  
RESULT 14  
US-08-029-170-24  
Sequence 24, Application US/08029170  
Patent No. 6169173  
GENERAL INFORMATION:  
APPLICANT: WANK, Stephen A.  
TITLE OF INVENTION: CLONING AND FUNCTIONAL EXPRESSION OF  
TITLE OF INVENTION: CHOLECYSTOKININ RECEPTOR-ENCODING DNA  
NUMBER OF SEQUENCES: 32  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Foley & Lardner  
STREET: 1800 Diagonal Road, Suite 500  
CITY: Alexandria  
STATE: VA  
COUNTRY: USA  
ZIP: 22313-0299  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent In Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/029,170  
FILING DATE: 19930310  
CLASSIFICATION: 435  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/937,609  
FILING DATE: 02-SEP-1992  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/928,033  
FILING DATE: 11-AUG-1992



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; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/861,769
; FILING DATE: 01-APR-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/831,248
; FILING DATE: 07-FEB-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: BENT, Stephen A.
; REGISTRATION NUMBER: 29,768
; REFERENCE/DOCKET NUMBER: 40399/166 NIHD
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (703)836-9300
; TELEFAX: (703)683-4109
; TELEX: 899149
; INFORMATION FOR SEQ ID NO: 24:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 450 amino acids
; TYPE: AMINO ACID
; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; CLONE: guinea pig CCKA receptor
US-08-029-170-24

Query Match 74.0%; Score 289.5; DB 3; Length 450;
Best Local Similarity 79.3%; Pred.No. 7.3e-28;
Matches 65; Conservative 4; Mismatches 10; Indels 3; Gaps 2;

QY 1 LELYQGIKFEASQKSAKPKPTSSGKYVEDSGCYL-KTRPRKLELRQLSTGS--SS 57
Db 254 LELYQGIKFDIAIKKSAKERTKSTGSGPMEDSDGCYLGKSRHPRKLELRQLSPSSG 313
.QY 58 RANRIRNSSAANLMAKKRVIR 79
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; TYPE: amino acid
; STRANDEDNESS: not relevant
; TOPOLOGY: linear
; MOLECULE TYPE: protein
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.QY 56 SSRANRIRNSSAANLMAKKRVIR 79
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Search completed: October 1, 2004, 16:45:30
Job time : 20 secs
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RESULT 15
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; Sequence 7, Application US/08570157
; Patent No. 5750353
; GENERAL INFORMATION:
; APPLICANT: Kopin, Alan S.
; APPLICANT: Beinborn, Martin
; TITLE OF INVENTION: ASSAY FOR NON-PEPTIDE AGONISTS TO
; TITLE OF INVENTION: PEPTIDE HORMONE RECEPTORS
; NUMBER OF SEQUENCES: 23
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson P.C.
; STREET: 225 Franklin Street
; CITY: Boston
; STATE: MA
; COUNTRY: USA
; ZIP: 02110-2804
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/570,157
; FILING DATE: 11-DEC-1995
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Clark, Paul T.
; REGISTRATION NUMBER: 30,182
; REFERENCE/DOCKET NUMBER: 00398/109001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 617/542-5070
; TELEFAX: 617/542-8906
; TELEX: 200154
; INFORMATION FOR SEQ ID NO: 7:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 453 amino acids
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GenCore version 5.1.6  
Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: October 1, 2004, 16:37:50 ; Search time 130 Seconds  
(without alignments)  
195.555 Million cell updates/sec

Title: US-09-841-091B-20

Perfect score: 391

Sequence: 1 LELYQGIKFEASQKSAKER.....NRIRNSSAANLMAKKRVIR 79

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Searched: 1351062 seqs, 321799191 residues

Total number of hits satisfying chosen parameters: 1351062

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

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- Published Applications AA:\*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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2	391	100.0	79	14	US-10-251-703-20
3	380.5	97.3	428	10	US-09-443-745-31
4	380.5	97.3	428	14	US-10-225-567A-94
5	380.5	97.3	428	14	US-10-060-369-12
6	380.5	97.3	428	14	US-10-127-940-5
7	380.5	97.3	428	14	US-10-441-757-5
8	316	80.8	443	14	US-10-127-940-6
9	316	80.8	443	14	US-10-441-757-6
10	316	80.8	444	10	US-09-443-745-14
11	289.5	74.0	430	10	US-09-443-745-23
12	289.5	74.0	450	10	US-09-443-745-24
13	288.5	73.8	176	9	US-09-864-761-35690
14	151	38.6	453	14	US-10-127-940-7
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16	113	28.9	89	12	US-09-841-091B-19	Sequence 19, Appl
17	112	28.6	447	10	US-09-443-745-29	Sequence 29, Appl
18	112	28.6	447	10	US-09-876-252-78	Sequence 78, Appl
19	112	28.6	447	14	US-10-157-031-10	Sequence 10, Appl
20	112	28.6	447	14	US-10-225-567A-132	Sequence 132, Appl
21	112	28.6	447	15	US-10-417-820A-78	Sequence 78, Appl
22	112	28.6	447	16	US-10-723-955-78	Sequence 3, Appl
23	111.5	28.5	448	14	US-10-127-940-3	Sequence 3, Appl
24	111.5	28.5	448	14	US-10-441-757-3	Sequence 909, Appl
25	107	27.4	20	14	US-10-225-567A-909	Sequence 112, Appl
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27	106	27.1	447	12	US-09-876-252-132	Sequence 132, Appl
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29	106	27.1	447	15	US-10-417-820A-132	Sequence 132, Appl
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32	102	26.1	453	10	US-09-443-745-26	Sequence 26, Appl
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45	82	21.0	20	14	US-10-251-703-14	Sequence 14, Appl

ALIGNMENTS

RESULT 1

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; Sequence 20, Application US/09841091B  
; Publication No. US20020076755A1  
; GENERAL INFORMATION:  
; APPLICANT: Kuliopulos, Athan  
; TITLE OF INVENTION: G Protein Coupled Receptor (GPCR) Agonists and Antagonists and Methods of Activating and Inhibiting  
; TITLE OF INVENTION: GPCR Using the Same  
; FILE REFERENCE: 18475-034  
; CURRENT APPLICATION NUMBER: US/09/841,091B  
; CURRENT FILING DATE: 2001-04-23  
; PRIOR APPLICATION NUMBER: 60/198,993  
; PRIOR FILING DATE: 2000-04-21  
; NUMBER OF SEQ ID NOS: 29  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 20  
; LENGTH: 79  
; TYPE: PRT  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Description of Artificial Sequence: Pepducin  
; OTHER INFORMATION: Peptide Sequence  
US-09-841-091B-20

Query Match 100.0%; Score 391; DB 12; Length 79;  
Best Local Similarity 100.0%; Pred. No. 1e-37;  
Matches 79; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 LELYQGIKFEASQKSAKERKSTSSGKYEDSGCYLKTTRPKLEQLSTGSSSRAN 60

DB 1 LELYQGIKFEASQKSAKERKSTSSGKYEDSGCYLKTTRPKLEQLSTGSSSRAN 60

QY 61 RIRNSSAANLMAKKRVIR 79

DB 61 RIRNSSAANLMAKKRVIR 79

```
RESULT 2
US-10-251-703-20
; Sequence 20, Application US/10251703
; Publication No. US20030148449A1
; GENERAL INFORMATION:
; APPLICANT: Kulopulos, Athan
; APPLICANT: Covic, Lidija
; TITLE OF INVENTION: G Protein Coupled Receptor Agonists and Antagonists and
; TITLE OF INVENTION: Methods of Activating and Inhibiting G Protein Coupled
; TITLE OF INVENTION: Receptors Using the Same
; FILE REFERENCE: NEMC-215 CIP
; CURRENT APPLICATION NUMBER: US/10/251,703
; CURRENT FILING DATE: 2002-09-20
; PRIOR APPLICATION NUMBER: 09/841,091
; PRIOR FILING DATE: 2001-04-23
; PRIOR APPLICATION NUMBER: 60/198,993
; PRIOR FILING DATE: 2000-04-21
; NUMBER OF SEQ ID NOS: 41
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 20
; LENGTH: 79
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Pepducin
; OTHER INFORMATION: Peptide Sequence
US-10-251-703-20

Query Match 100.0%; Score 391; DB 14; Length 79;
Best Local Similarity 100.0%; Pred. No. 1e-37;
Matches 79; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 LELYQIKFEASQKSAKERKPSSTSSGKYEDSDGCLYKTRPPRKLELRQLSTGSSSRAN 60
Db 1 LELYQIKFEASQKSAKERKPSSTSSGKYEDSDGCLYKTRPPRKLELRQLSTGSSSRAN 60
QY 61 RIRNSSAANLMAKKRVIR 79
Db 61 RIRNSSAANLMAKKRVIR 79

RESULT 3
US-09-443-745-31
; Sequence 31, Application US/09443745
; Publication No. US20030055238A1
; GENERAL INFORMATION:
; APPLICANT: WANK, Stephen A.
; TITLE OF INVENTION: CLONING AND FUNCTIONAL EXPRESSION OF
; TITLE OF INVENTION: CHOLECYSTOKININ RECEPTOR-ENCODING DNA
; NUMBER OF SEQUENCES: 32
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Foley & Lardner
; STREET: 1800 Diagonal Road, Suite 500
; CITY: Alexandria
; STATE: VA
; COUNTRY: USA
; ZIP: 22313-0299
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/443,745
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/029,170
; FILING DATE: 10-MAR-1993
; APPLICATION NUMBER: US 07/937,609
; FILING DATE: 02-SEP-1992
; PRIOR APPLICATION DATA:
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; APPLICATION NUMBER: US 07/928,033
; FILING DATE: 11-AUG-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/861,769
; FILING DATE: 01-APR-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/831,248
; FILING DATE: 07-FEB-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: BENT, Stephen A.
; REGISTRATION NUMBER: 29,768
; REFERENCE/DOCKET NUMBER: 40399/166 NIHD
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (703)836-9300
; TELEFAX: (703)683-4109
; TELEX: 899149
; INFORMATION FOR SEQ ID NO: 31:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 428 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-09-443-745-31

Query Match 97.3%; Score 380.5; DB 10; Length 428;
Best Local Similarity 98.8%; Pred. No. 1.3e-35;
Matches 79; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 LELYQIKFEASQKSAKERKPSSTSSGKYEDSDGCLYKTRPPRKLELRQLSTGSSSRA 59
Db 234 LELYQIKFEASQKSAKERKPSSTSSGKYEDSDGCLYKTRPPRKLELRQLSTGSSSRA 293
QY 60 NRIRNSSAANLMAKKRVIR 79
Db 294 NRIRNSSAANLMAKKRVIR 313

RESULT 4
US-10-225-567A-94
; Sequence 94, Application US/10225567A
; Publication No. US20030113798A1
; GENERAL INFORMATION:
; APPLICANT: LifeSpan Biosciences
; APPLICANT: Brown, Joseph P.
; APPLICANT: Burmer, Glenna C.
; APPLICANT: Roush, Christine L.
; TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIBODIES FOR G PROTEIN-COUPLED RECEPTORS
; FILE REFERENCE: 1920-4-4
; CURRENT APPLICATION NUMBER: US/10/225,567A
; CURRENT FILING DATE: 2001-12-19
; PRIOR APPLICATION NUMBER: 60/257,144
; PRIOR FILING DATE: 2000-12-19
; NUMBER OF SEQ ID NOS: 2292
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 94
; LENGTH: 428
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-10-225-567A-94

Query Match 97.3%; Score 380.5; DB 14; Length 428;
Best Local Similarity 98.8%; Pred. No. 1.3e-35;
Matches 79; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 LELYQIKFEASQKSAKERKPSSTSSGKYEDSDGCLYKTRPPRKLELRQLSTGSSSRA 59
Db 234 LELYQIKFEASQKSAKERKPSSTSSGKYEDSDGCLYKTRPPRKLELRQLSTGSSSRA 293
QY 60 NRIRNSSAANLMAKKRVIR 79
Db 294 NRIRNSSAANLMAKKRVIR 313
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RESULT 5  
US-10-060-369-12  
; Sequence 12, Application US/10060369  
; Publication No. US20030139589A1  
; GENERAL INFORMATION:  
; APPLICANT: Zastawny, Roman  
; TITLE OF INVENTION: G PROTEIN COUPLED RECEPTOR A4  
; FILE REFERENCE: 2931-104  
; CURRENT APPLICATION NUMBER: US/10/060,369  
; PRIOR FILING DATE: 2003-03-31  
; PRIOR FILING DATE: 2003-03-31  
; PRIOR FILING DATE: 1998-08-16  
; NUMBER OF SEQ ID NOS: 12  
; SOFTWARE: Patent in version 3.2  
; SEQ ID NO 12  
; LENGTH: 428  
; TYPE: PRT  
; ORGANISM: Human  
US-10-060-369-12

Query Match 97.3%; Score 380.5; DB 14; Length 428;  
Best Local Similarity 98.8%; Pred. No. 1.3e-35;  
Matches 79; Conservative 0; Mismatches 0; Indels 1; Gaps 1;  
QY 1 LELYQIKFEASQKSAKERKPTSSGKYEDSDGCVL-KTRPPRKLELRQLSTGSSRA 59  
DB 234 LELYQIKFEASQKSAKERKPTSSGKYEDSDGCVLQKTRPPRKLELRQLSTGSSRA 293  
QY 60 NRIRNSSAANLMAKKRVIR 79  
DB 294 NRIRNSSAANLMAKKRVIR 313

RESULT 6  
US-10-127-940-5  
; Sequence 5, Application US/10127940  
; Publication No. US20030180798A1  
; GENERAL INFORMATION:  
; APPLICANT: Kopin, Alan S.  
; TITLE OF INVENTION: ASSAY FOR NON-PEPTIDE AGONISTS TO  
; CORRESPONDENCE ADDRESS:  
; ADDRESSSEE: Clark & Elbing LLP  
; STREET: 176 Federal Street  
; CITY: Boston  
; STATE: MA  
; COUNTRY: USA  
; ZIP: 02110  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: FastSeq version 2.0  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/10/127,940  
; FILING DATE: 23-Apr-2002  
; CLASSIFICATION: <Unknown>  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US/09/076,510  
; FILING DATE: 12 MAY 1998  
; APPLICATION NUMBER: 08/570,157  
; FILING DATE: 11-DEC-1995  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Clark, Paul T.  
; REGISTRATION NUMBER: 30,162  
; REFERENCE/DOCKET NUMBER: 00398/109002  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: 617/428-0200  
; TELEFAX: 617/438-7045  
; TELEX: <Unknown>  
; INFORMATION FOR SEQ ID NO: 5:

SEQUENCE CHARACTERISTICS:  
LENGTH: 428 amino acids  
TYPE: amino acid  
STRANDEDNESS: No. US20030180798A1 Relevant  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
SEQUENCE DESCRIPTION: SEQ ID NO: 5:  
US-10-127-940-5

Query Match 97.3%; Score 380.5; DB 14; Length 428;  
Best Local Similarity 98.8%; Pred. No. 1.3e-35;  
Matches 79; Conservative 0; Mismatches 0; Indels 1; Gaps 1;  
QY 1 LELYQIKFEASQKSAKERKPTSSGKYEDSDGCVL-KTRPPRKLELRQLSTGSSRA 59  
DB 234 LELYQIKFEASQKSAKERKPTSSGKYEDSDGCVLQKTRPPRKLELRQLSTGSSRA 293  
QY 60 NRIRNSSAANLMAKKRVIR 79  
DB 294 NRIRNSSAANLMAKKRVIR 313

RESULT 7  
US-10-441-757-5  
; Sequence 5, Application US/10441757  
; Publication No. US2003019114A1  
; GENERAL INFORMATION:  
; APPLICANT: Kopin, Alan S.  
; TITLE OF INVENTION: ASSAY FOR AND USES OF PEPTIDE HORMONE  
; TITLE OF INVENTION: RECEPTOR AGONISTS  
; FILE REFERENCE: 00398/118002  
; CURRENT APPLICATION NUMBER: US/10/441,757  
; CURRENT FILING DATE: 2003-05-20  
; PRIOR APPLICATION NUMBER: US/09/004,349  
; PRIOR FILING DATE: 1998-01-08  
; PRIOR APPLICATION NUMBER: 08/570,157  
; PRIOR FILING DATE: 1995-12-11  
; NUMBER OF SEQ ID NOS: 23  
; SOFTWARE: FastSeq for Windows Version 3.0  
; SEQ ID NO 5  
; LENGTH: 428  
; TYPE: PRT  
; ORGANISM: Homo sapiens  
US-10-441-757-5

Query Match 97.3%; Score 380.5; DB 14; Length 428;  
Best Local Similarity 98.8%; Pred. No. 1.3e-35;  
Matches 79; Conservative 0; Mismatches 0; Indels 1; Gaps 1;  
QY 1 LELYQIKFEASQKSAKERKPTSSGKYEDSDGCVL-KTRPPRKLELRQLSTGSSRA 59  
DB 234 LELYQIKFEASQKSAKERKPTSSGKYEDSDGCVLQKTRPPRKLELRQLSTGSSRA 293  
QY 60 NRIRNSSAANLMAKKRVIR 79  
DB 294 NRIRNSSAANLMAKKRVIR 313

RESULT 8  
US-10-127-940-6  
; Sequence 6, Application US/10127940  
; Publication No. US20030180798A1  
; GENERAL INFORMATION:  
; APPLICANT: Kopin, Alan S.  
; TITLE OF INVENTION: ASSAY FOR NON-PEPTIDE AGONISTS TO  
; PEPTIDE HORMONE RECEPTORS  
; NUMBER OF SEQUENCES: 23  
; CORRESPONDENCE ADDRESS:  
; ADDRESSSEE: Clark & Elbing LLP  
; STREET: 176 Federal Street  
; CITY: Boston

US-10-060-369-12  
; Sequence 12, Application US/10060369  
; Publication No. US20030139589A1  
; GENERAL INFORMATION:  
; APPLICANT: Zastawny, Roman  
; TITLE OF INVENTION: G PROTEIN COUPLED RECEPTOR A4  
; FILE REFERENCE: 2931-104  
; CURRENT APPLICATION NUMBER: US/10/060,369  
; PRIOR FILING DATE: 2003-03-31  
; PRIOR FILING DATE: 2003-03-31  
; PRIOR FILING DATE: 1998-08-16  
; NUMBER OF SEQ ID NOS: 12  
; SOFTWARE: Patent in version 3.2  
; SEQ ID NO 12  
; LENGTH: 428  
; TYPE: PRT  
; ORGANISM: Human  
US-10-060-369-12

Query Match 97.3%; Score 380.5; DB 14; Length 428;  
Best Local Similarity 98.8%; Pred. No. 1.3e-35;  
Matches 79; Conservative 0; Mismatches 0; Indels 1; Gaps 1;  
QY 1 LELYQIKFEASQKSAKERKPTSSGKYEDSDGCVL-KTRPPRKLELRQLSTGSSRA 59  
DB 234 LELYQIKFEASQKSAKERKPTSSGKYEDSDGCVLQKTRPPRKLELRQLSTGSSRA 293  
QY 60 NRIRNSSAANLMAKKRVIR 79  
DB 294 NRIRNSSAANLMAKKRVIR 313

RESULT 6  
US-10-127-940-5  
; Sequence 5, Application US/10127940  
; Publication No. US20030180798A1  
; GENERAL INFORMATION:  
; APPLICANT: Kopin, Alan S.  
; TITLE OF INVENTION: ASSAY FOR NON-PEPTIDE AGONISTS TO  
; CORRESPONDENCE ADDRESS:  
; ADDRESSSEE: Clark & Elbing LLP  
; STREET: 176 Federal Street  
; CITY: Boston  
; STATE: MA  
; COUNTRY: USA  
; ZIP: 02110  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: FastSeq version 2.0  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/10/127,940  
; FILING DATE: 23-Apr-2002  
; CLASSIFICATION: <Unknown>  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US/09/076,510  
; FILING DATE: 12 MAY 1998  
; APPLICATION NUMBER: 08/570,157  
; FILING DATE: 11-DEC-1995  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Clark, Paul T.  
; REGISTRATION NUMBER: 30,162  
; REFERENCE/DOCKET NUMBER: 00398/109002  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: 617/428-0200  
; TELEFAX: 617/438-7045  
; TELEX: <Unknown>  
; INFORMATION FOR SEQ ID NO: 5:

SEQUENCE CHARACTERISTICS:  
LENGTH: 428 amino acids  
TYPE: amino acid  
STRANDEDNESS: No. US20030180798A1 Relevant  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
SEQUENCE DESCRIPTION: SEQ ID NO: 5:  
US-10-127-940-5

Query Match 97.3%; Score 380.5; DB 14; Length 428;  
Best Local Similarity 98.8%; Pred. No. 1.3e-35;  
Matches 79; Conservative 0; Mismatches 0; Indels 1; Gaps 1;  
QY 1 LELYQIKFEASQKSAKERKPTSSGKYEDSDGCVL-KTRPPRKLELRQLSTGSSRA 59  
DB 234 LELYQIKFEASQKSAKERKPTSSGKYEDSDGCVLQKTRPPRKLELRQLSTGSSRA 293  
QY 60 NRIRNSSAANLMAKKRVIR 79  
DB 294 NRIRNSSAANLMAKKRVIR 313

RESULT 7  
US-10-441-757-5  
; Sequence 5, Application US/10441757  
; Publication No. US2003019114A1  
; GENERAL INFORMATION:  
; APPLICANT: Kopin, Alan S.  
; TITLE OF INVENTION: ASSAY FOR AND USES OF PEPTIDE HORMONE  
; TITLE OF INVENTION: RECEPTOR AGONISTS  
; FILE REFERENCE: 00398/118002  
; CURRENT APPLICATION NUMBER: US/10/441,757  
; CURRENT FILING DATE: 2003-05-20  
; PRIOR APPLICATION NUMBER: US/09/004,349  
; PRIOR FILING DATE: 1998-01-08  
; PRIOR APPLICATION NUMBER: 08/570,157  
; PRIOR FILING DATE: 1995-12-11  
; NUMBER OF SEQ ID NOS: 23  
; SOFTWARE: FastSeq for Windows Version 3.0  
; SEQ ID NO 5  
; LENGTH: 428  
; TYPE: PRT  
; ORGANISM: Homo sapiens  
US-10-441-757-5

Query Match 97.3%; Score 380.5; DB 14; Length 428;  
Best Local Similarity 98.8%; Pred. No. 1.3e-35;  
Matches 79; Conservative 0; Mismatches 0; Indels 1; Gaps 1;  
QY 1 LELYQIKFEASQKSAKERKPTSSGKYEDSDGCVL-KTRPPRKLELRQLSTGSSRA 59  
DB 234 LELYQIKFEASQKSAKERKPTSSGKYEDSDGCVLQKTRPPRKLELRQLSTGSSRA 293  
QY 60 NRIRNSSAANLMAKKRVIR 79  
DB 294 NRIRNSSAANLMAKKRVIR 313

RESULT 8  
US-10-127-940-6  
; Sequence 6, Application US/10127940  
; Publication No. US20030180798A1  
; GENERAL INFORMATION:  
; APPLICANT: Kopin, Alan S.  
; TITLE OF INVENTION: ASSAY FOR NON-PEPTIDE AGONISTS TO  
; PEPTIDE HORMONE RECEPTORS  
; NUMBER OF SEQUENCES: 23  
; CORRESPONDENCE ADDRESS:  
; ADDRESSSEE: Clark & Elbing LLP  
; STREET: 176 Federal Street  
; CITY: Boston



Db 249 LELYQGIKFDASQKSAKEKKPSTGSTRYEDSDGCVLQKSRPRKLELQQLSSGGSGSR 308  
Qy 59 ANRIRSSSAANLMAKRVIR 79  
Db 309 LNRIRSSSSAANLIARVIR 329

RESULT 11  
US-09-443-745-23  
; Sequence 23, Application US/09443745  
; Publication No. US20030055238A1  
; GENERAL INFORMATION:  
; APPLICANT: WANK, Stephen A.  
; TITLE OF INVENTION: CLONING AND FUNCTIONAL EXPRESSION OF  
; TITLE OF INVENTION: CHOLECYSTOKININ RECEPTOR-ENCODING DNA  
; NUMBER OF SEQUENCES: 32  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Foley & Lardner  
; STREET: 1800 Diagonal Road, Suite 500  
; CITY: Alexandria  
; STATE: VA  
; COUNTRY: USA  
; ZIP: 22313-0299  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: PatentIn Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/09/443,745  
; FILING DATE:  
; CLASSIFICATION:  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: 08/029,170  
; FILING DATE: 10-MAR-1993  
; APPLICATION NUMBER: US 07/937,609  
; FILING DATE: 02-SEP-1992  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/928,033  
; FILING DATE: 11-AUG-1992  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/861,769  
; FILING DATE: 01-APR-1992  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/831,248  
; FILING DATE: 07-FEB-1992  
; ATTORNEY/AGENT INFORMATION:  
; NAME: BENT, Stephen A.  
; REGISTRATION NUMBER: 29,768  
; REFERENCE/DOCKET NUMBER: 40399/166 NIHD  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (703)836-9300  
; TELEFAX: (703)683-4109  
; TELEX: 899149  
; INFORMATION FOR SEQ ID NO: 23:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 430 amino acids  
; TYPE: amino acid  
; TOPOLOGY: linear  
; MOLECULE TYPE: protein  
US-09-443-745-23

Query Match 74.0%; Score 289.5; DB 10; Length 430;  
Best Local Similarity 79.3%; Pred. No. 4.9e-25;  
Matches 65; Conservative 4; Mismatches 10; Indels 3; Gaps 2;  
Qy 1 LELYQGIKFEASQKSAKERKPTSTSSGKYEDSDGCVL-KTRPPRKLELRLQSTGS--SS 57  
Db 234 LELYQGIKFDALQKSAKERKPTSTSSGKPMEDSDGCVLQKSRPRKLELRLQSPSSSGSN 293  
Qy 58 RANRIRSSSAANLMAKRVIR 79  
Db 294 RINRIRSSSSAANLMAKRVIR 315

RESULT 12  
US-09-443-745-24  
; Sequence 24, Application US/09443745  
; Publication No. US20030055238A1  
; GENERAL INFORMATION:  
; APPLICANT: WANK, Stephen A.  
; TITLE OF INVENTION: CLONING AND FUNCTIONAL EXPRESSION OF  
; TITLE OF INVENTION: CHOLECYSTOKININ RECEPTOR-ENCODING DNA  
; NUMBER OF SEQUENCES: 32  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Foley & Lardner  
; STREET: 1800 Diagonal Road, Suite 500  
; CITY: Alexandria  
; STATE: VA  
; COUNTRY: USA  
; ZIP: 22313-0299  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: PatentIn Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/09/443,745  
; FILING DATE:  
; CLASSIFICATION:  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: 08/029,170  
; FILING DATE: 10-MAR-1993  
; APPLICATION NUMBER: US 07/937,609  
; FILING DATE: 02-SEP-1992  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/928,033  
; FILING DATE: 11-AUG-1992  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/861,769  
; FILING DATE: 01-APR-1992  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/831,248  
; FILING DATE: 07-FEB-1992  
; ATTORNEY/AGENT INFORMATION:  
; NAME: BENT, Stephen A.  
; REGISTRATION NUMBER: 29,768  
; REFERENCE/DOCKET NUMBER: 40399/166 NIHD  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (703)836-9300  
; TELEFAX: (703)683-4109  
; TELEX: 899149  
; INFORMATION FOR SEQ ID NO: 24:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 450 amino acids  
; TYPE: amino acid  
; TOPOLOGY: linear  
; IMMEDIATE SOURCE:  
; CLONE: guinea pig CCKA receptor  
US-09-443-745-24

Query Match 74.0%; Score 289.5; DB 10; Length 450;  
Best Local Similarity 79.3%; Pred. No. 5.2e-25;  
Matches 65; Conservative 4; Mismatches 10; Indels 3; Gaps 2;  
Qy 1 LELYQGIKFEASQKSAKERKPTSTSSGKYEDSDGCVL-KTRPPRKLELRLQSTGS--SS 57  
Db 254 LELYQGIKFDALQKSAKERKPTSTSSGKPMEDSDGCVLQKSRPRKLELRLQSPSSSGSN 313  
Qy 58 RANRIRSSSAANLMAKRVIR 79  
Db 314 RINRIRSSSSAANLMAKRVIR 335

RESULT 13  
US-09-864-761-35690

Sequence 35690, Application US/09864761  
Patent No. US20020048763A1  
GENERAL INFORMATION:  
APPLICANT: Penn, Sharon G.  
APPLICANT: Rank, David R.  
APPLICANT: Hanzel, David K.  
APPLICANT: Chen, Wensheng  
TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR  
TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY-MICROARRAY  
FILE REFERENCE: Aeomica-X-1  
CURRENT APPLICATION NUMBER: US/09/864,761  
PRIOR FILING DATE: 2001-05-23  
PRIOR APPLICATION NUMBER: US 60/180,312  
PRIOR FILING DATE: 2000-02-04  
PRIOR APPLICATION NUMBER: US 60/207,456  
PRIOR FILING DATE: 2000-05-26  
PRIOR APPLICATION NUMBER: US 09/632,366  
PRIOR FILING DATE: 2000-08-03  
PRIOR APPLICATION NUMBER: GB 24263.6  
PRIOR FILING DATE: 2000-10-04  
PRIOR APPLICATION NUMBER: US 60/236,359  
PRIOR FILING DATE: 2000-09-27  
PRIOR APPLICATION NUMBER: PCT/US01/00666  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: PCT/US01/00667  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: PCT/US01/00664  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: PCT/US01/00669  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: PCT/US01/00665  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: PCT/US01/00668  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: PCT/US01/00663  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: PCT/US01/00662  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: PCT/US01/00661  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: PCT/US01/00670  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: US 60/234,687  
PRIOR FILING DATE: 2000-09-21  
PRIOR APPLICATION NUMBER: US 09/608,408  
PRIOR FILING DATE: 2000-06-30  
PRIOR APPLICATION NUMBER: US 09/774,203  
PRIOR FILING DATE: 2001-01-29  
NUMBER OF SEQ ID NOS: 49117  
SOFTWARE: Annonax Sequence Listing Engine vers. 1.1  
SEQ ID NO 35690  
LENGTH: 176  
TYPE: PRT  
ORGANISM: Homo sapiens  
FEATURE:  
OTHER INFORMATION: MAP TO AC006391.7  
OTHER INFORMATION: EXPRESSED IN PLACENTA, SIGNAL = 2  
OTHER INFORMATION: EXPRESSED IN BONE MARROW, SIGNAL = 2.2  
OTHER INFORMATION: EXPRESSED IN FETAL LIVER, SIGNAL = 1.9  
OTHER INFORMATION: EXPRESSED IN HEART, SIGNAL = 2.5  
OTHER INFORMATION: EXPRESSED IN HELA, SIGNAL = 1.6  
OTHER INFORMATION: EXPRESSED IN HEL100, SIGNAL = 1.6  
OTHER INFORMATION: EXPRESSED IN BRAIN, SIGNAL = 2.1  
OTHER INFORMATION: EXPRESSED IN LUNG, SIGNAL = 3.5  
OTHER INFORMATION: EXPRESSED IN BT474, SIGNAL = 1.6  
OTHER INFORMATION: EXPRESSED IN ADULT LIVER, SIGNAL = 1.8  
OTHER INFORMATION: EST HUMAN HIT: AW271780.1, EVALUE 7.00e-07  
OTHER INFORMATION: SWISSPROT HIT: P32238, EVALUE 2.00e-75  
US-09-864-761-35690

Query Match 73.8%; Score 288.5; DB 9; Length 176;  
Best Local Similarity 98.4%; Pred. No. 2.2e-25;  
Matches 60; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 20 RKPSTTSSGKYEDSDGCVL-KTRPPRKLELQRLSTGSSSRANRIRNSSSAANLMAKRV 78  
Db 1 RKPSTTSSGKYEDSDGCVLQKTRPPRKLELQRLSTGSSSRANRIRNSSSAANLMAKRV 60  
QY 79 R 79  
Db 61 R 61  
RESULT 14  
US-10-127-940-7  
Sequence 7, Application US/10127940  
Publication No. US20030180798A1  
GENERAL INFORMATION:  
APPLICANT: Kopin, Alan S.  
Beinborn, Martin  
TITLE OF INVENTION: ASSAY FOR NON-PEPTIDE AGONISTS TO  
PEPTIDE HORMONE RECEPTORS  
NUMBER OF SEQUENCES: 23  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Clark & Elbing LLP  
STREET: 176 Federal Street  
CITY: Boston  
STATE: MA  
COUNTRY: USA  
ZIP: 02110  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: FastSeq version 2.0  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/10/127,940  
FILING DATE: 23-Apr-2002  
CLASSIFICATION: <Unknown>  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US/09/076,510  
FILING DATE: 12 MAY 1998  
APPLICATION NUMBER: 08/570,157  
FILING DATE: 11-DEC-1995  
ATTORNEY/AGENT INFORMATION:  
NAME: Clark, Paul T.  
REGISTRATION NUMBER: 30,162  
REFERENCE/DOCKET NUMBER: 00398/109002  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 617/428-0200  
TELEFAX: 617/438-7045  
TELEX: <Unknown>  
INFORMATION FOR SEQ ID NO: 7:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 453 amino acids  
TYPE: amino acid  
STRANDEDNESS: No.  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
SEQUENCE DESCRIPTION: SEQ ID NO: 7:  
US-10-127-940-7

Query Match 38.6%; Score 151; DB 14; Length 453;  
Best Local Similarity 42.9%; Pred. No. 6.3e-09;  
Matches 36; Conservative 15; Mismatches 25; Indels 8; Gaps 3;  
QY 2 ELYQGIKFEASQKSAKERK-----PSTTSSGKYEDSDGCVLK-TRPPRKLELQRLSTGS 55  
Db 262 ELYRGIQFEMDLNKAHNGVSTPTIPSG--DEGDCYIQVTKRNTMEMSTLTPSV 319  
QY 56 SSRANRIRNSSSAANLMAKRV 79  
Db 320 CTKMDARINNSEAKLMAKRV 343  
RESULT 15



US-10-441-757-7  
 ; Sequence 7, Application US/10441757  
 ; Publication No. US20030191114A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Kopin, Alan S.  
 ; APPLICANT: Beinborn, Martin  
 ; TITLE OF INVENTION: ASSAY FOR AND USES OF PEPTIDE HORMONE  
 ; TITLE OF INVENTION: RECEPTOR AGONISTS  
 ; FILE REFERENCE: 00398/118002  
 ; CURRENT APPLICATION NUMBER: US/10/441,757  
 ; CURRENT FILING DATE: 2003-05-20  
 ; PRIOR APPLICATION NUMBER: US/09/004,349  
 ; PRIOR FILING DATE: 1998-01-08  
 ; PRIOR APPLICATION NUMBER: 08/570,157  
 ; PRIOR FILING DATE: 1995-12-11  
 ; NUMBER OF SEQ ID NOS: 23  
 ; SOFTWARE: FastSeq for Windows Version 3.0  
 ; SEQ ID NO 7  
 ; LENGTH: 453  
 ; TYPE: PRT  
 ; ORGANISM: Xenopus laevis  
 US-10-441-757-7

Query Match 38.6%; Score 151; DB 14; Length 453;  
 Best Local Similarity 42.9%; Pred. No. 6.3e-09;  
 Matches 36; Conservative 15; Mismatches 25; Indels 8; Gaps 3;  
 QY 2 ELYGKIFKFEASQKSKAKERK-----PSTTSCKYEDSDGCVLK-TREPRKLELRQLSTGS 55  
 Db 262 ELYRGIQFMDLNKEAKAHNGVSTPTIPSG--DEGDCYIQVTKRNTMEMSTLTSPV 319  
 .QY 56 SSRANRIRSNSSAANLMAKKRVIR 79  
 Db 320 CTXMDRARIINNSEAKLMAKKRVIR 343

Search completed: October 1, 2004, 16:49:06  
 Job time : 131 secs

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GenCore version 5.1.6  
Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: October 1, 2004, 16:34:54 ; Search time 15 Seconds  
(without alignments)  
506.609 Million cell updates/sec

Title: US-09-841-091B-20

Perfect score: 391

Sequence: 1 LELYQIKFEASQKSAKER.....NRIRNSSAANLMAKRVIR 79

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283366 seqs, 96191526 residues

Total number of hits satisfying chosen parameters: 283366

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

PIR 78:\*

1: pir1:\*

2: pir2:\*

3: pir3:\*

4: pir4:\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	380.5	97.3	428	2 JN0692	cholecystokinin ty
2	316	80.8	444	2 A42685	cholecystokinin re
3	289.5	74.0	430	2 I51988	cholecystokinin A
4	284.5	72.8	436	2 JCS599	cholecystokinin-A
5	268	68.5	427	2 S50150	gastric CCK-A rece
6	112	28.6	447	2 A47430	gastrin/cholecysto
7	101.5	26.0	450	2 JQ1614	gastrin receptor -
8	98.5	25.2	381	2 S48049	cholecystokinin B
9	98.5	25.2	452	2 A46195	cholecystokinin B
10	91.5	23.4	452	2 JC2459	gastrin/cholecysto
11	85.5	21.9	453	2 S32817	gastrin receptor -
12	73	18.7	1359	2 T34036	hypothetical prote
13	71.5	18.3	446	2 A32284	chromogranin A pre
14	71.5	18.3	2823	2 T23064	hypothetical prote
15	71.5	18.3	2823	2 F87908	protein T2A3.8 [i
16	71.5	18.3	3102	2 T43291	laminin alpha chai
17	70.5	18.0	533	2 T00742	ubiquitin-binding
18	69	17.6	414	2 A39205	nuclear localizati
19	68.5	17.5	580	2 T31529	hypothetical prote
20	67.5	17.3	672	2 H86169	hypothetical prote
21	66.5	17.0	570	1 S50393	myb-related protei
22	66	16.9	351	2 T29922	hypothetical prote
23	66	16.9	399	1 OKBYC1	protein kinase (EC
24	66	16.9	537	2 A86444	probable RNA helic
25	66	16.9	1641	2 I38614	helicase II - huma
26	65.5	16.8	735	2 S64504	transcription init
27	65.5	16.8	1045	2 T18630	hypothetical prote
28	65.5	16.8	7160	2 T27935	hypothetical prote
29	65	16.6	470	2 T34402	hypothetical prote

30	65	16.6	1520	2 T00273	hypothetical prote
31	64.5	16.5	133	2 T29465	hypothetical prote
32	64.5	16.5	644	2 S39356	transcription fact
33	64	16.4	589	2 S60159	serine/threonine-s
34	64	16.4	796	2 S57844	lethal(3)malignant
35	64	16.4	1046	2 T29776	hypothetical prote
36	64	16.4	1279	2 T13613	hypothetical prote
37	64	16.4	1401	2 T48079	hypothetical prote
38	63.5	16.2	232	2 S65085	finger protein XFO
39	63.5	16.2	555	2 T30349	structural protein
40	63	16.1	300	2 T18796	hypothetical prote
41	63	16.1	333	2 T19313	hypothetical prote
42	63	16.1	419	2 T16917	hypothetical prote
43	63	16.1	702	2 S41685	NGG1 protein - yea
44	63	16.1	1704	2 T43141	vitellogenin 1 - m
45	62.5	16.0	101	2 S65494	sperm-specific pro

ALIGNMENTS

RESULT 1

JN0692

cholecystokinin type A receptor - human

C:Species: Homo sapiens (man)

C>Date: 03-Feb-1994 #sequence\_revision 03-Feb-1994 #text\_change 20-Apr-2000

C/Accession: JN0692; JN0590

R:de Weerth, A.; Piegna, J.R.; Huppi, K.; Wank, S.A.

Biochem. Biophys. Res. Commun. 194, 811-818, 1993

A>Title: Molecular cloning, functional expression and chromosomal localization of the human

A/Reference number: JN0692; MUID:9343941; PMID:8343165

A/Accession: JN0692

A/Molecule type: mRNA

A/Residues: 1-428 <DEW>

A/Cross-references: GB:113315; NID:G306595; PIDN:AAA02819.1; PID:G306596

A/Experimental source: gallbladder

R:Ulrich, C.B.; Ferber, I.; Holicky, E.; Hadac, E.; Buell, G.; Miller, L.J.

Biochem. Biophys. Res. Commun. 193, 204-211, 1993

A>Title: Molecular cloning and functional expression of the human gallbladder cholecysto

A/Reference number: JN0590; MUID:93277552; PMID:8503909

A/Accession: JN0590

A/Status: nucleic acid sequence not shown

A/Molecule type: DNA

A/Residues: 1-428 <ULR>

A/Cross-references: GB:113605; NID:G306490; PIDN:AAA35659.1; PID:G306491

A/Experimental source: gallbladder

C/Comment: This protein has diverse physiological roles in the gastrointestinal system w

ch, and secretion from gastric mucosal cells.

C/Genetics:

A/Gene: GDB:CKKAR

A/Cross-references: GDB:141927; OMIM:118444

A/Map position: 4pter-4qter

C/Superfamily: neurokinin 1 receptor

C/Keywords: G protein-coupled receptor; glycoprotein; hormone receptor; phosphoprotein; t

F:40-67/Domain: transmembrane #status predicted <TM1>

F:78-104/Domain: transmembrane #status predicted <TM2>

F:116-137/Domain: transmembrane #status predicted <TM3>

F:158-178/Domain: transmembrane #status predicted <TM4>

F:208-234/Domain: transmembrane #status predicted <TM5>

F:314-332/Domain: transmembrane #status predicted <TM6>

F:350-369/Domain: transmembrane #status predicted <TM7>

F:10,24,190,299/Binding site: carboxylate (Asn) (covalent) #status predicted

F:245,249,260,290/Binding site: phosphate (Ser) (covalent) (by protein kinase A) #status

F:256/Binding site: phosphate (Ser) (covalent) (by protein kinase A) #status predicted

Query Match 97.3%; Score 380.5; DB 2; Length 428;

Best Local Similarity 98.8%; Pred. No. 6.9e-33;

Matches 79; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 LELYQIKFEASQKSAKERKPSSTSSGKYVEDSGCYL-KTRPPRKLELRQLSTGSSRA 59

DB 234 LELYQIKFEASQKSAKERKPSSTSSGKYVEDSGCYLQKTRPPRKLELRQLSTGSSRA 293

```
QY 60 NRIRNSSAANLMAKKRVIR 79
|||||
Db 294 NRIRNSSAANLMAKKRVIR 313

RESULT 2
A42685
cholecystokinin receptor type A - rat
C:Species: Rattus norvegicus (Norway rat)
C:Date: 04-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 20-Apr-2000
C:Accession: A42685; Jc4225; PC2213
R:Wank, S.A.; Harkins, R.; Jensen, R.T.; Shapira, H.; de Weerth, A.; Slattery, T.
Proc. Natl. Acad. Sci. U.S.A. 89, 3125-3129, 1992
A:Title: Purification, molecular cloning, and functional expression of the cholecystokinin
A:Reference number: A42685; MUID:92212981; PMID:1313582
A:Accession: A42685
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-444 <WAN>
A:Cross-references: GB:M88096; NID:G203383; PIDN:AAA40899.1; PID:G203384
A:Experimental source: pancreas
A:Note: sequence extracted from NCBI backbone (NCBIN:93814, NCBI:93815)
R:Takata, Y.; Takiguchi, S.; Funakoshi, A.; Kono, A.
Biochem. Biophys. Res. Commun. 213, 958-966, 1995
A:Title: Gene structure of rat cholecystokinin type-A receptor.
A:Reference number: JC4225; MUID:95382845; PMID:7654260
A:Accession: JC4225
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-223 <TAK>
A:Cross-references: DDBJ:D50608; NID:g1100752
R:Nantamadiotis, T.; Baldwin, G.S.
Biochem. Biophys. Res. Commun. 201, 1382-1389, 1994
A:Title: The seventh transmembrane domain of gastrin/CKK receptors contributes to non-pe
A:Reference number: PC2213; MUID:94296413; PMID:8024583
A:Accession: PC2213
A:Status: preliminary
A:Molecule type: protein
A:Residues: 166-389 <MAN>
C:Comment: This G-protein-coupled receptor is present in the gastrointestinal system, va
, smooth muscle contraction of the gallbladder and stomach. It is capable of activating
ducing the subsequent release of intracellular calcium.
C:Genetics:
A:Gene: CCKAR
A:Introns: 53/1; 137/1; 224/2; 267/1
C:Superfamily: neurokinin 1 receptor
C:Keywords: G protein-coupled receptor; hormone receptor; transmembrane protein
F:57-82/Domain: transmembrane #status predicted <TM1>
F:93-119/Domain: transmembrane #status predicted <TM2>
F:131-151/Domain: transmembrane #status predicted <TM3>
F:173-193/Domain: transmembrane #status predicted <TM4>
F:225-249/Domain: transmembrane #status predicted <TM5>
F:330-348/Domain: transmembrane #status predicted <TM6>
F:366-389/Domain: transmembrane #status predicted <TM7>

Query Match 80.8%; Score 316; DB 2; Length 444;
Best Local Similarity 82.7%; Pred. No. 5.2e-26;
Matches 67; Conservative 8; Mismatches 4; Indels 2; Gaps 2;

QY 1 LELYQIKFEASQKSAKERKPTSTTSGKYEDSDGCVL-KTRPPRKLELRQLSTGS-SSR 58
|||||
Db 249 LELYQIKFEASQKSAKERKPTSTTSGKYEDSDGCVLQKSRPPRKLELRQLSSGGSGSR 308
|||||

QY 59 ANRIRNSSAANLMAKKRVIR 79
|||||
Db 309 LNRISSSSAANLMAKKRVIR 329
|||||

RESULT 3
151898
cholecystokinin A receptor - guinea pig
C:Species: Cavia porcellus (guinea pig)
C:Date: 04-Sep-1997 #sequence_revision 04-Sep-1997 #text_change 20-Apr-2000
```

```
C:Accession: I51898
R:De Weerth, A.; Pisegna, J.R.; Wank, S.A.
Am. J. Physiol. 265, G116-G121, 1993
A:Title: Guinea pig gallbladder and pancreas possess identical CCK-A receptor subtypes: 1
A:Reference number: I51898; MUID:94106629; PMID:7916580
A:Accession: I51898
A:Status: preliminary; translated from GB/EMBL/DBDJB
A:Molecule type: mRNA
A:Residues: 1-430 <RES>
A:Cross-references: GB:S68242; NID:G544723; PIDN:AAB29504.1; PID:G544724
C:Superfamily: neurokinin 1 receptor

Query Match 74.0%; Score 289.5; DB 2; Length 430;
Best Local Similarity 79.3%; Pred. No. 3.3e-23;
Matches 65; Conservative 4; Mismatches 10; Indels 3; Gaps 2;

QY 1 LELYQIKFEASQKSAKERKPTSTTSGKYEDSDGCVL-KTRPPRKLELRQLSTGS-SS 57
|||||
Db 234 LELYQIKFEASQKSAKERKPTSTTSGSGPMEDSDGCVLQKSRHPRKLELRQLSPSSSGSN 293
|||||

QY 58 RANRIRNSSAANLMAKKRVIR 79
|||||
Db 294 RINRIRSSSTANLMAKKRVIR 315
|||||

RESULT 4
JC5599
cholecystokinin-A receptor - mouse
C:Species: Mus musculus (house mouse)
C:Date: 23-Sep-1997 #sequence_revision 23-Sep-1997 #text_change 20-Apr-2000
C:Accession: JC5599
R:Lacourse, K.A.; Lay, J.M.; Swanberg, L.J.; Jenkins, C.; Samuelson, L.C.
Biochem. Biophys. Res. Commun. 236, 630-635, 1997
A:Title: Molecular structure of the mouse CCK-A receptor gene.
A:Reference number: JC5599; MUID:97396148; PMID:9245702
A:Accession: JC5599
A:Status: nucleic acid sequence not shown
A:Molecule type: DNA
A:Residues: 1-436 <LAC>
A:Note: translation not complete
C:Comment: This receptor belongs to the seven transmembrane G-protein coupled receptor f
der contraction, and cholecystokinin inhibition of food intake.
C:Superfamily: neurokinin 1 receptor
F:42-67/Domain: transmembrane #status predicted <TM>

Query Match 72.8%; Score 284.5; DB 2; Length 436;
Best Local Similarity 71.6%; Pred. No. 1.1e-22;
Matches 63; Conservative 10; Mismatches 6; Indels 9; Gaps 3;

QY 1 LELYQIKFEASQKSAKERKPTSTTSGKYEDSDGCVL-KTRPPRKLELRQLS 52
|||||
Db 234 LELYQIKFEASQKSAKERKLSGGGGGGSSSRYSDDGCVLQKSRPPRKLELRQLS 293
|||||

QY 53 TGSS-SRANRIRNSSAANLMAKKRVIR 79
|||||
Db 294 TSSSGGRINRIRSSGSAANLMAKKRVIR 321
|||||

RESULT 5
SS0150
gastric CCK-A receptor - rabbit
C:Species: Oryctolagus cuniculus (domestic rabbit)
C:Date: 14-Jul-1995 #sequence_revision 21-Jul-1995 #text_change 20-Apr-2000
C:Accession: SS0150
R:Reuben, M.; Rising, L.; Prinz, C.; Hersey, S.; Sachs, G.
Biochem. Biophys. Acta 1219, 321-327, 1994
A:Title: Cloning and expression of the rabbit gastric CCK-A receptor.
A:Reference number: SS0150; MUID:95002144; PMID:7918628
A:Accession: SS0150
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-427 <REU>
C:Superfamily: neurokinin 1 receptor
```

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Query Match      68.5%; Score 268; DB 2; Length 427;
Best Local Similarity 71.2%; Pred. No. 6.4e-21;
Matches 57; Conservative 11; Mismatches 10; Indels 2; Gaps 2;

QY 1 LELYQGIKFEASOKKSAKERKPTTSSGKYEDSDGCVL-KTRPPKLEURQLSTGSSSRA 59
      |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 234 LELYQGIKFEASOKKSAKERKAS-TGSGRFEDNDGCVLQSKPTQLQLSGGGGGRV 292
      |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
QY 60 NRIRNSSAANLMAKKRVIR 79
      :|||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 293 SRHSSSAAALMAKKRVIR 312
      :|||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:

RESULT 6
A47430
gastrin/cholecystokinin receptor B, short splice form - human
N;Alternate names: CCK-B/gastrin receptor; cholecystokinin-B/gastrin receptor
C;Species: Homo sapiens (man)
C;Date: 25-Feb-1994 #sequence_revision 18-Nov-1994 #text_change 20-Jun-2000
C;Accession: A47430; JCI1352; A46645; A49262
R;Ito, M.; Matsui, T.; Taniguchi, T.; Tsukamoto, T.; Arima, N.; Nakata, H.;
J. Biol. Chem. 268, 18300-18305, 1993
A;Title: Functional characterization of a human brain cholecystokinin-B receptor. A trophic
A;Reference number: A47430; MUID:93352657; PMID:8349705
A;Accession: A47430
A;Status: preliminary; not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 1-447 <TO>
A;Cross-references: GB:D13305; NID:G436039; PIDN:BAA02564.1; PID:G436040
A;Experimental source: brain
A;Note: sequence extracted from NCBI backbone (NCBIP:136448)
R;Pisegna, J.R.; de Weerth, A.; Huppi, K.; Wank, S.A.
Biochem. Biophys. Res. Commun. 189, 296-303, 1992
A;Title: Molecular cloning of the human brain and gastric cholecystokinin receptor. Stru
A;Reference number: JCI1352; MUID:93080572; PMID:1280419
A;Accession: JCI1352
A;Molecule type: mRNA
A;Residues: 1-447 <PIS>
A;Cross-references: GB:L04473; NID:G179997; PIDN:AAA35660.1; PID:G179998
A;Experimental source: brain, gastric
R;Lee, Y.M.; Beinborn, M.; McBride, B.W.; Lu, M.; Kolakowski Jr., L.F.; Kopin, A.S.
J. Biol. Chem. 268, 8164-8169, 1993
A;Title: The human brain cholecystokinin-B/gastrin receptor. Cloning and characterization
A;Reference number: A46645; MUID:93216795; PMID:7681836
A;Accession: A46645
A;Status: nucleic acid sequence not shown; not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 1-447 <LEE>
A;Cross-references: GB:L08112; NID:G306488; PIDN:AAA35657.1; PID:G306489
A;Experimental source: brain
A;Note: sequence extracted from NCBI backbone (NCBIP:129156)
R;Song, I.; Brown, D.R.; Wiltshire, R.N.; Gant, J.; Trent, J.M.; Yamada, T.
Proc. Natl. Acad. Sci. U.S.A. 90, 9085-9089, 1993
A;Title: The human gastrin/cholecystokinin type B receptor gene: alternative splice don
A;Reference number: A48262; MUID:94022320; PMID:8415658
A;Accession: A48262
A;Status: preliminary; translated from GB/EMBL/DBJ
A;Molecule type: DNA
A;Residues: 1-447 <RES>
A;Cross-references: GB:L10822; NID:G406075; PIDN:AAC37528.1; PID:G406076
C;Genetics:
A;Gene: GDB:CKBR
A;Cross-references: GDB:136457; OMIM:118445
A;Map position: lip15.5-lip15.4
A;Introns: 51/1; 135/1; 218/2; 271/1
C;Superfamily: neurokinin 1 receptor
C;Keywords: alternative splicing; G protein-coupled receptor; glycoprotein; hormone rece
P;57-81/Domain: transmembrane #status predicted <TM1>
P;91-116/Domain: transmembrane #status predicted <TM2>
P;131-150/Domain: transmembrane #status predicted <TM3>
P;171-192/Domain: transmembrane #status predicted <TM4>
P;219-243/Domain: transmembrane #status predicted <TM5>
```

```
F;334-354/Domain: transmembrane #status predicted <TM6>
F;369-392/Domain: transmembrane #status predicted <TM7>
F;7,30,36/Binding site: carbohydrate (Aen) (covalent) #status predicted
F;82,154,300,442/Binding site: phosphate (Ser) (covalent) #status predicted
F;127-205/Disulfide bonds: #status predicted
F;321/Binding site: phosphate (Thr) (covalent) #status predicted

Query Match      28.6%; Score 112; DB 2; Length 447;
Best Local Similarity 33.7%; Pred. No. 0.00026;
Matches 34; Conservative 14; Mismatches 19; Indels 34; Gaps 6;

QY 2 ELYQGIKFEASOKKSAKER-----KPSTTSSGKYEDSDGCVL---KTR 41
      |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 244 ELYGLRFDGSDSDSQSRVRNQGLPGAVHQNGRCRPTGAVG--EDSDGCVQLPRSR 301
      |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
QY 42 PPKLELRQLST---GSSSRANRIRNSSAANLMAKKRVIR 79
      |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 302 P--ALELTALTAPGSGSRPTQ-----AKLLAKRVIR 333
      |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:

RESULT 7
JQ1614
gastrin receptor - multimammate rat (Mastomys natalensis)
C;Species: Mastomys natalensis
C;Date: 17-Apr-1993 #sequence_revision 17-Apr-1993 #text_change 21-Jul-2000
C;Accession: JQ1614
R;Nakata, H.; Matsui, T.; Ito, M.; Taniguchi, T.; Naribayashi, Y.; Arima, N.; Nakamura, T.
Biochem. Biophys. Res. Commun. 187, 1151-1157, 1992
A;Title: Cloning and characterization of gastrin receptor from ECL carcinoma tumor of Ma
A;Reference number: JQ1614; MUID:92412082; PMID:1530611
A;Accession: JQ1614
A;Molecule type: mRNA
A;Residues: 1-450 <NAK>
A;Cross-references: GB:D12817; NID:G220646; PIDN:BAA02250.1; PID:G220647
C;Superfamily: neurokinin 1 receptor
C;Keywords: G protein-coupled receptor; glycoprotein; hormone receptor; transmembrane pr
F;59-83/Domain: transmembrane #status predicted <TM1>
F;87-109/Domain: transmembrane #status predicted <TM2>
F;132-150/Domain: transmembrane #status predicted <TM3>
F;172-188/Domain: transmembrane #status predicted <TM4>
F;216-243/Domain: transmembrane #status predicted <TM5>
F;334-357/Domain: transmembrane #status predicted <TM6>
F;380-398/Domain: transmembrane #status predicted <TM7>
F;7,30,36/Binding site: carbohydrate (Aen) (covalent) #status predicted

Query Match      26.0%; Score 101.5; DB 2; Length 450;
Best Local Similarity 28.9%; Pred. No. 0.0035;
Matches 28; Conservative 18; Mismatches 28; Indels 23; Gaps 4;

QY 2 ELYQGIKFEASOKKSAKER-----KPSTTSSGKY-----EDSDGCVLKTRP 42
      |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 244 ELYGLRFDGSDSDSQSRVRNQGLPGGTAPGPVHQNGCRHVTAVGEDNDGCVQL-P 302
      |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
QY 43 PKLELRQLSTGSSSRANRIRNSSAANLMAKKRVIR 79
      |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 303 RSRLEMTTLTPTPGPG---LASANOAKLLAKRVIR 336
      |||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:

RESULT 8
S48049
cholecystokinin B receptor - rat (fragment)
C;Species: Rattus norvegicus (Norway rat)
C;Date: 07-May-1995 #sequence_revision 01-Nov-1996 #text_change 20-Apr-2000
R;Jagerschmidt, A.; Popovici, T.; O'Donohue, M.; Roques, B.P.
J. Neurochem. 63, 1199-1206, 1994
A;Title: Identification and characterization of various cholecystokinin B receptor mRNA
A;Reference number: S48049; MUID:95016646; PMID:7931273
A;Accession: S48049
A;Status: nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-381 <JAG>
A;Cross-references: EMBL:X79209; NID:G558236; PIDN:CAA55798.1; PID:G558237
```

A;Note: the nucleotide sequence was submitted to the EMBL Data Library, May 1994  
C;Genetics:  
A;Introns: 64/2; 147/2; 205/1  
C;Superfamily: neurokinin 1 receptor

```

Query Match      25.2%; Score 98.5; DB 2; Length 381;
Best Local Similarity 30.0%; Pred. No. 0.0061;
Matches 30; Conservative 14; Mismatches 29; Indels 27; Gaps 4

Qy      2 ELYOGIKFEASQKSAKER-----KPTTSSGKYEDSDGCYLK 39
      ||| : | : | :
Db      173 ELYGLHFDGENSETQSRARNQGLPGGAAPGVHONGGCRPVTSVAG--EDSDGCCVQ 230
      ||| : | : | :

Qy      40 TRPPRKLEQLQLSTGSSSRANRIRNSAANLMKKRVIR 79
      ||| : | : | :
Db      231 L-PRSRLEMTLTTPTPGVPGPGRPNO--AKLLAKKRVIR 267
      ||| : | : | :

```

RESULT 9  
A46195  
cholecystokinin B receptor subtype - rat  
C:Species: Rattus norvegicus (Norway rat)  
C:date: 21-Sep-1993 #sequence revision 18-Nov-1994 #text change 20-Apr-2000

C; Accession: A46195  
R; Wank, S.A.; Pisegna, J.R.; de Weerth, A.  
Proc. Natl. Acad. Sci. U.S.A. 89, 8631-8635, 1992  
A; Title: Brain and gastrointestinal cholecystokinin receptor family: structure and function  
A; Reference number: A46195; PMID: 92409582; PMID: 1528891

A/Accession: A46195  
A/Status: preliminary  
A/Molecule type: nucleic acid  
A/Residues: 1-452 <WAN>  
A/Cross-references: GB:M99418; NID:G203459; PID:AAA40925.1; PID:G203460  
A/Experimental source: brain  
A/Note: sequence extracted from NCBI backbone (NCBIN:114083, NCBIPI:114084)  
C/superfamily: neurokinin 1 receptor  
C/keywords: G protein-coupled receptor; transmembrane protein

Query Match	25.2%	Score	98.5;	DB	2;
Best Local Similarity	30.0%;	Pred. No.	0.0073;		
Matches	30;	Conservative	14;	Mismatches	29;
				Indels	27;
				Gaps	4;

```

Qy      2  ELYQGIKFEASOKSAKER-----KPSSTSGKYVEDSDGCYLK 39
      ||| : : : : : : : : : : : : : : : : : : : : : : : : : :
Db      244  EYLGLHFDGENDSETQSRNQNGGLPGGAAPGVPHQNGCRPVTSVAG--EDSDGCCVQ 301
      ||| : : : : : : : : : : : : : : : : : : : : : : : : : :

Qy      40  TPAPKLELRQLSTGSSRRNRIIRSNSSAANLMAKKEVIR 79
      ||| : : : : : : : : : : : : : : : : : : : : : : : : : :
Db      302  L-PRSRLEMTTITTPGVFGPVPNO--AKLLAKKAVR 338
      ||| : : : : : : : : : : : : : : : : : : : : : : : : : :

```

RESULT 10  
JC2459  
gastrin/cholecystokinin B receptor - rabbit  
C:Species: Oryctolagus cuniculus (domestic rabbit)  
C:date: 21-Feb-1995 #sequence\_revision 05-Apr-1995 #text\_change 20-Apr-2000  
C:accession: JC2459

R;Blandizzi, C.; Song, I.; Yamada, T.  
Biochem. Biophys. Res. Commun. 202, 947-953, 1994  
A;Title: Molecular cloning and structural analysis of the rabbit gastrin/CCKB receptor gene  
A;Reference number: JG2459; MUID:94324990; PMID:8048969

A:Accession: JC2459  
A:Molecule type: mRNA  
A:Residues: 1-452 <BLA>  
A:Cross-references: GB:L31548; NID:g495663; PIDN:AAA31194.1; PID:g495665  
C:Genetics:

C; Genes: A; Introns: 49/1; 133/1; 216/2; 273/1  
C; Superfamily: neurokinin 1 receptor  
C; Keywords: receptor; transmembrane protein  
F: 56-79/Domain: transmembrane #status predicted <TM1>  
F: 85-104/Domain: transmembrane #status predicted <TM2>  
F: 130-149/Domain: transmembrane #status predicted <TM3>  
F: 169-187/Domain: transmembrane #status predicted <TM4>

```
F;217-237/Domain: transmembrane #status predicted <TW5>
F;339-359/Domain: transmembrane #status predicted <TW6>
F;384-400/Domain: transmembrane #status predicted <TW7>
```

```

Query Match      23.4%; Score 91.5; DB 2; Length 452;
Best Local Similarity 29.1%; Pred. No. 0.04;
Matches 30; Conservative 15; Mismatches 27; Indels 31; Gaps 5;

Qy 2 ELYQGIKFEASQKSAKER-----KPTSTSSGKYEDSDGCVL- 38
||| |||::: ||::: ||::: ||::: ||::: ||::: ||:::
Db 242 ELYGLRFDSDSSESQSRVGGGLPGGAAPGVHQNGRCRPEAGLAG--EDGDGCVVQ 299

Qy 39 --KTRPRKLEQLQSTGSSSRANRIRNSSAANLMAKRVIR 79
||| |||::: ||::: ||::: ||::: ||::: ||::: ||:::
Db 300 LPSRRP--ALELSALTAPISGPGGPR--PAQAKLLAKKRVVR 338
||| |||::: ||::: ||::: ||::: ||::: ||::: ||:::

```

## RESULT 11

S32817  
gastrin receptor - dog  
C;Species: Canis lupus familiaris (dog)  
C;Date: 06-Jan-1995 #sequence\_revision 06-Jan-1995 #text\_change 20-Apr-2000  
C;Accession: S32817  
R;Kopin, A.S.; Lee, Y.M.; McBride, E.W.; Miller, L.J.; Lu, M.; Lin, H.Y.; Kolakowski Jr.,  
Proc. Natl. Acad. Sci. U.S.A. 89, 3605-3609, 1992  
A;Title: Expression cloning and characterization of the canine parietal cell gastrin rec  
A;Reference number: S32817; MUID:92228835; PMID:1373504

A: Accession: S32817 MUID: 922228835; PMID: 1373504  
A: Reference number: S32817  
A: Status: preliminary  
A: Molecule type: mRNA  
A: Residues: 1-453 <KOP>  
A: Cross-references: EMBL:M87834; NID:G163956; PIDN:AAA30847, 1  
C: Superfamily: neurokinin 1 receptor  
C: Keywords: G protein-coupled receptor; transmembrane protein

Query Match	21.9%;	Score 85.5;	DB 2;	Length 453;
Best Local Similarity	28.3%;	Pred. No. 0.18;		
Matches	28;	Conservative	14;	Mismatches 32;
				Indels 25;
				Gaps 4;

```

QY      2  ELYQGIKEASQKSAKER-----KPSITSSGKCYEDSGCYLK-T 40
Db      245  EYLGLRFEDEDSSESVRSGGURGAGPGAPPNGSCRPEGLAG--EDGDSQYVQLP 302

QY      41  RPRKLELRQLSTGSSFRANKIRNSAANLMAKKVR 79
Db      303  RSRQTELSALTATPPGGGPRPYO--AKILAKKRV 339

```

RESULT 12

T34035  
Hypothetical protein B0041.7 - *Caenorhabditis elegans*  
Cispecies: *Caenorhabditis elegans*  
Cipate: 29-Oct-1999 #sequence\_revision 29-Oct-1999 #t  
CAccession: T34036  
R.Fulton, R.; Wohldmann, P.  
submitted to the EMBL Data Library, April 1997  
A:Description: The sequence of C. elegans cosmid B004  
A:Reference number: Z21466

A:Accession: T34036  
A:Status: preliminary; translated from GB/EMBL/DBJ  
A:Molecule type: DNA  
A:Residues: 1-1359 <FUL>  
A:Cross-references: EMBL:AF000196; PIDN:AC24256.1;  
A:Experimental source: strain Bristol N2; clone B000  
C:Genetics:  
A:Gene: CESP:B0041.7  
A:Map position: 1

Query Match 18.7%; Score 73; DB 2; Length 1359;  
Best Local Similarity 31.5%; Pred. No. 11;  
Matches 23; Conservative 12; Mismatches 34; Indels 4; Gaps 1

Qy 8 KFEASQKSAKRPSTSSGKYEDSD-GCYLTKRPPRKLELQSLSTGSSRA---NRIR 63  
A;Status: preliminary; translated from GB/EMBL/DDBJ  
A;Molecule type: DNA  
A;Residues: 1-2823 <W12>  
A;Cross-references: EMBL:Z81125; PIDN: CAB03385.1; GSPDB:GN00019; CESP:T22A3.8  
A;Experimental source: clone T22A3  
C;Genetics:  
A;Gene: CESP:T22A3.8  
A;Map position: 1  
A;Introns: 45/1; 282/2; 312/3; 416/2; 1255/3; 1329/3; 1418/3; 1776/2; 1988/2; 2760/2  
C;Superfamily: laminin alpha-1 chain; laminin G repeat homology; laminin-type EGF-like h  
Db 107 KKKVDQKKKSKKTKTSSSEDESDSEEREQSKSKSKTKTKQTSSSESESEERKVK 166  
Qy 64 SNSAANLMAKKR 76  
Db 167 KSKNKEKSKVKR 179

RESULT 13  
A32284  
chromogranin A precursor - pig (fragment)  
N;Alternate names: secretory protein I  
N;Contains: beta-granin; chromostatin; pancreastatin; parastatin; vasostatin  
C;Species: Sus scrofa domestica (domestic pig)  
C;Date: 21-May-1990 #sequence\_revision 21-May-1990 #text\_change 16-Jul-1999  
C;Accession: A32284; A26419  
R;Iacangelo, A.L.; Fischer-Colbrie, R.; Koller, K.J.; Brownstein, M.J.; Eiden, L.E.  
Endocrinology 122, 2339-2341, 1988  
A;Title: The sequence of porcine chromogranin A messenger RNA demonstrates chromogranin  
A;Reference number: A32284; MUID: 88196011; PMID: 2834189  
A;Accession: A32284  
A;Molecule type: mRNA  
A;Residues: 1-446 <IAC>  
A;Cross-references: EMBL:M20926; NID: g164416; PIDN: AAA31016.1; PID: g164417  
R;Tatemoto, K.; Efendic, S.; Mutt, V.; Makk, G.; Feistner, G.J.; Barchas, J.D.  
Nature 324, 476-478, 1986  
A;Title: Pancreastatin, a novel pancreatic peptide that inhibits insulin secretion.  
A;Reference number: A26419; MUID: 87045127; PMID: 3537810  
A;Accession: A26419  
A;Molecule type: protein  
A;Residues: 256-304 <TAI>  
A;Experimental source: pancreas  
C;Comment: Pancreastatin may be a normal proteolysis product of endogenous porcine chrom  
C;Comment: Pancreastatin strongly inhibits the early phase of insulin release and inhibi  
l as in regulation of carbohydrate metabolism and hyperglycemia in diabetes.  
C;Superfamily: chromogranin A  
C;Keywords: amidated carboxyl end; calcium binding; carbohydrate metabolism; glycoprotein  
F;256-304/Product: pancreastatin #status experimental <PCN>  
F;304/Modified site: amidated carboxyl end (Gly) (amide in mature form from following gl

Query Match 18.3%; Score 71.5; DB 2; Length 446;  
Best Local Similarity 32.5%; Pred. No. 5.4;  
Matches 25; Conservative 10; Mismatches 35; Indels 7; Gaps 3;  
Qy 2 ELYGKIFEASQKSAKRPSTSSGKYEDSDGCG--YLKTRPRKLELQSLSTGSSRA 59  
Db 114 ELKEGTE-EASSKEAEKSGSKEVEKNDEADGAKPQASLEPPXXEADQTPGEEAA 172  
Qy 60 NRIRNSSAANLMAKKR 76  
Db 173 ----STHPLASLPSKKR 185

RESULT 14  
T23064  
hypothetical protein T22A3.8 - Caenorhabditis elegans (fragment)  
C;Species: Caenorhabditis elegans  
C;Date: 15-Oct-1999 #sequence\_revision 15-Oct-1999 #text\_change 21-Jul-2000  
C;Accession: T23064; T25096  
R;Barlow, K.  
submitted to the EMBL Data Library, October 1997  
A;Reference number: Z19669  
A;Accession: T23064  
A;Status: preliminary; translated from GB/EMBL/DDBJ  
A;Molecule type: DNA  
A;Residues: 1-2823 <W12>  
A;Cross-references: EMBL:AL008585; PIDN: CAA15432.1; GSPDB:GN00019; CESP:T22A3.8  
A;Experimental source: clone H10E24  
R;McMurray, A.  
submitted to the EMBL Data Library, October 1996  
A;Reference number: Z19980  
A;Accession: T25096

A;Status: preliminary; translated from GB/EMBL/DDBJ  
A;Molecule type: DNA  
A;Residues: 1-2823 <W12>  
A;Cross-references: EMBL:Z81125; PIDN: CAB03385.1; GSPDB:GN00019; CESP:T22A3.8  
A;Experimental source: clone T22A3  
C;Genetics:  
A;Gene: CESP:T22A3.8  
A;Map position: 1  
A;Introns: 45/1; 282/2; 312/3; 416/2; 1255/3; 1329/3; 1418/3; 1776/2; 1988/2; 2760/2  
C;Superfamily: laminin alpha-1 chain; laminin G repeat homology; laminin-type EGF-like h  
Query Match 18.3%; Score 71.5; DB 2; Length 2823;  
Best Local Similarity 34.2%; Pred. No. 34;  
Matches 27; Conservative 13; Mismatches 24; Indels 15; Gaps 4;  
Qy 5 QGKIFEASQKSAKRPSTSSGKYEDSDGCVLTKRPPR-----KL-ELRQLSTGS 55  
Db 2175 EGKITEVSAIKAEVEKLMNSTSGVQEDME---KIRASRTGMEYGAQKLTKNKULSTAN 2230  
Qy 56 SSRANRIRNSSAANLMAK 74  
Db 2231 QGRTDKWARN--IAILKAK 2247

RESULT 15  
F87908  
protein T22A3.8 [imported] - Caenorhabditis elegans  
C;Species: Caenorhabditis elegans  
C;Date: 10-May-2001 #sequence\_revision 10-May-2001 #text\_change 24-Aug-2001  
C;Accession: F87908; E87908  
R;anonymous, The C. elegans Sequencing Consortium.  
Science 282, 2012-2018, 1998  
A;Title: Genome sequence of the nematode C. elegans: a platform for investigating biology  
A;Reference number: A75000; MUID: 99069613; PMID: 9851916  
A;Note: see websites genome.wustl.edu/gsc/C\_elegans/ and www.sanger.ac.uk/projects/C\_eleg  
A;Note: published errata appeared in Science 283, 35, 1999; Science 283, 2103, 1999; and  
A;Accession: F87908  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-2823 <ST2>  
A;Cross-references: GB:chr\_1; PIDN: CAA15432.1; PID: g3924779; GSPDB:GN00019; CESP:T22A3.8  
A;Accession: E87908  
A;Status: preliminary  
A;Molecule type: DNA  
A;Residues: 1-2823 <ST2>  
A;Cross-references: GB:chr\_1; PIDN: CAB03385.1; PID: g3924881; GSPDB:GN00019; CESP:T22A3.8  
C;Genetics:  
A;Map position: 1  
A;Gene: T22A3.8  
C;Superfamily: laminin alpha-1 chain; laminin G repeat homology; laminin-type EGF-like h  
Query Match 18.3%; Score 71.5; DB 2; Length 2823;  
Best Local Similarity 34.2%; Pred. No. 34;  
Matches 27; Conservative 13; Mismatches 24; Indels 15; Gaps 4;  
Qy 5 QGKIFEASQKSAKRPSTSSGKYEDSDGCVLTKRPPR-----KL-ELRQLSTGS 55  
Db 2175 EGKITEVSAIKAEVEKLMNSTSGVQEDME---KIRASRTGMEYGAQKLTKNKULSTAN 2230  
Qy 56 SSRANRIRNSSAANLMAK 74  
Db 2231 QGRTDKWARN--IAILKAK 2247

Search completed: October 1, 2004, 16:38:04  
Job time: 17 secs

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GenCore version 5.1.6  
Copyright (c) 1993 - 2004 Compugen Ltd.

OM protein - protein search, using sw model

Run on: October 1, 2004, 16:33:33 ; Search time 9 Seconds  
(without alignments)  
457.060 Million cell updates/sec

Title: US-09-841-091b-20

Perfect score: 391

Sequence: 1 LELYQIKFEASQKSAKER.....NRIRNSSAANLMAKRVIR 79

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 141681 seqs, 52070155 residues

Total number of hits satisfying chosen parameters: 141681

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : SwissProt\_42.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

*Result No.	Score	Query Match %	Length	DB ID	Description
1	380.5	97.3	428	1	CCKR_HUMAN
2	316	80.8	444	1	CCKR_RAT
3	289.5	74.0	430	1	CCKR_CAVPO
4	284.5	72.8	436	1	CCKR_MOUSE
5	275	70.3	427	1	CCKR_RABIT
6	151	38.6	453	1	CCKR_XENLA
7	112	28.6	447	1	GASR_HUMAN
8	103	26.3	453	1	GASR_MOUSE
9	101.5	26.0	450	1	GASR_PRANA
10	98.5	25.2	452	1	GASR_RAT
11	94.5	24.2	454	1	GASR_BOVIN
12	91.5	23.4	452	1	GASR_RABIT
13	85.5	21.9	453	1	GASR_CANFA
14	73	18.7	1359	1	ATRX_CABEL
15	71.5	18.3	446	1	CMGA_PIG
16	69	17.6	414	1	NSR1_YEAST
17	67	17.1	552	1	AIRE_MOUSE
18	66	16.9	397	1	KAPA_YEAST
19	66	16.9	2492	1	ATRX_HUMAN
20	66	16.9	2492	1	ATRX_PONPY
21	66	16.9	2492	1	ATRX_PONPY
22	65.5	16.8	735	1	T2FA_YEAST
23	64.5	16.5	388	1	CZF1_CANAL
24	64.5	16.5	644	1	BTD_DRONE
25	64	16.4	796	1	MTN_DRONE
26	64	16.4	1402	1	Y232_HUMAN
27	63.5	16.2	529	1	SWA_DROPS
28	63	16.1	333	1	RSR1_CABEL
29	63	16.1	589	1	STE7_CANAL
30	63	16.1	702	1	ADA3_YEAST
31	63	16.1	1704	1	VITI_FUNHE
32	62.5	16.0	239	1	FLGH_AGRTS
33	62.5	16.0	880	1	IF2_LEPTIN

RESULT 1  
CCKR\_HUMAN STANDARD; PRT; 428 AA.  
AC P32238;  
DT 01-OCT-1993 (Rel. 27, Created)  
DT 01-OCT-1993 (Rel. 27, Last sequence update)  
DT 15-MAR-2004 (Rel. 43, Last annotation update)  
DE Cholecystokinin type A receptor (CKK-A receptor) (CKK-AR).  
GN CKAR OR CKRA.  
OS Homo sapiens (Human).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.  
OX NCBI\_TaxID=9606;  
RN [1]  
RP SEQUENCE FROM N.A.  
RX TISSUE=Gall bladder;  
RC MEDLINE=93277552; PubMed=8503909;  
RA Ulrich C.D., Ferber I., Holicky E., Hadac E., Buell G.,  
RA Miller L.J.;  
RT "Molecular cloning and functional expression of the human gallbladder  
cholecystokinin A receptor.";  
RL Biochem. Biophys. Res. Commun. 193:204-211(1993).  
RN [2]  
RP SEQUENCE FROM N.A.  
RX MEDLINE=93433941; PubMed=8343165;  
RA Wank S.A., de Weerth A., Pilegma J.R., Huppi K.;  
RT "Molecular cloning, functional expression and chromosomal  
localization of the human cholecystokinin type A receptor.";  
RL Biochem. Biophys. Res. Commun. 194:811-818(1993).  
RN [3]  
RP SEQUENCE FROM N.A.  
RX MEDLINE=96029343; PubMed=7557108;  
RA Miller L.J., Holicky E.L., Ulrich C.D., Wieben E.D.;  
RT "Abnormal processing of the human cholecystokinin receptor gene in  
association with gallstones and obesity.";  
RL Gastroenterology 109:1375-1380(1995).  
RN [4]  
RP SEQUENCE FROM N.A.  
RX TISSUE=Peripheral blood leukocytes;  
RC MEDLINE=20145045; PubMed=10682840;  
RA Funakoshi A., Miyasaka K., Matsumoto H., Yamamori S., Takiguchi S.,  
Kataoka K., Takata Y., Matsue K., Kono A., Shimokata H.;  
RT "Gene structure of human cholecystokinin (CKK) type-A receptor: body  
fat content is related to CKK type-A receptor gene promoter  
polymorphism.";  
RL FEBS Lett. 466:264-266(2000).  
RN [5]  
RP SEQUENCE FROM N.A.  
RX TISSUE=Stomach;  
RC Kopatz S.A., Aronstam R.S., Sharma S.V.;  
RT "cDNA clones of human proteins involved in signal transduction  
sequenced by the Guthrie cDNA resource center (www.cdna.org).";  
RL Submitted (JUN-2003) to the EMBL/GenBank/DBJ databases.  
CC -!- FUNCTION: Receptor for cholecystokinin. Has a 1000 fold affinity  
for CKK rather than for gastrin. It modulates feeding and  
dopamine-induced behavior in the central and peripheral nervous

#### ALIGNMENTS

34	61.5	15.7	91	1	PHI1_MYED	Q04621	mytilus edu
35	61.5	15.7	517	1	T2FA_HUMAN	P35269	homo sapien
36	61	15.6	824	1	DD20_HUMAN	O9uh16	homo sapien
37	61	15.6	955	1	T150_HUMAN	O9y2w1	homo sapien
38	61	15.6	1912	1	VITI_CHICK	P87498	gallus gall
39	60.5	15.5	494	1	SFRM_MOUSE	O8b2x4	mus musculus
40	60.5	15.5	518	1	FXHI_XENLA	P70036	xenopus lae
41	60	15.3	398	1	KAPC_YEAST	P05986	saccharomyc
42	60	15.3	743	1	PLAK_HUMAN	P14923	homo sapien
43	60	15.3	990	1	T3RE_SALTY	P40815	salmonella
44	59.5	15.2	285	1	ROAA_MOUSE	O99020	mus musculus
45	59.5	15.2	331	1	ROAA_HUMAN	O99729	homo sapien







```
SEQUENCE FROM N.A.
RC TISSUE=Brain;
RC MEDLINE=96319796; PubMed=8700154;
RA Schmitz F., Pratt D.S., Wu M.-J., Kolakowski L.F. Jr., Beinborn M.,
RA Kopin A.S.;
RT "Identification of cholecystokinin-B/gastrin receptor domains that
RT confer high gastrin affinity: utilization of a novel Xenopus laevis
RT cholecystokinin receptor."
RL Mol. Pharmacol. 50:436-441(1996).
CC -1- FUNCTION: Receptor for cholecystokinin. This receptor mediates its
CC action by association with G proteins that activate a
CC phosphatidylinositol-calcium second messenger system. Has high
CC affinity for CCK-8 and low affinities for gastrin-17-1, CCK-4, and
CC unsulfated CCK-8.
CC -1- SUBCELLULAR LOCATION: Integral membrane protein.
CC -1- TISSUE SPECIFICITY: Brain and stomach.
CC -1- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.
CC HAS EQUAL SIMILARITY TO TYPE A AND B CHOLECYSTOKININ MAMMALIAN
CC RECEPTORS.
CC
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CC or send an email to license@sb-sib.ch).
CC
CC EMBL; U49258; AB09052.1; -.
DR HSP; P02699; I188.
DR InterPro; IPR000276; GPCR_Rhodopsn.
DR Pfam; PF00001; 7tm1.1; 1.
DR PRINTS; PR00237; GPCRHHODOPS.
DR PROSITE; PS00237; G_PROTEIN_RECP_F1_1; 1.
DR PROSITE; PS0262; G_PROTEIN_RECP_F1_2; 1.
KW G-protein coupled receptor; transmembrane; Glycoprotein;
KW Lipoprotein; Palmitate.
FT DOMAIN 1 64
FT TRANSMEM 65 94
FT DOMAIN 95 104
FT TRANSMEM 105 131
FT DOMAIN 132 142
FT TRANSMEM 143 164
FT DOMAIN 165 184
FT TRANSMEM 185 205
FT DOMAIN 206 237
FT TRANSMEM 238 261
FT DOMAIN 262 343
FT TRANSMEM 344 364
FT DOMAIN 365 379
FT TRANSMEM 380 403
FT DOMAIN 404 453
FT DISULFID 141 223
FT LIPID 401 401
FT CARBOHYD 9 9
FT CARBOHYD 22 22
FT CARBOHYD 30 30
FT CARBOHYD 35 35
FT CARBOHYD 39 39
SQ SEQUENCE 453 AA; 51157 MW; 0621792787482678 CRC64;

Query Match 38.6%; Score 151; DB 1; Length 453;
Best Local Similarity 42.9%; Pred. No. 8.3e-09;
Matches 36; Conservative 15; Mismatches 25; Indels 8; Gaps 3;

QY 2 ELVGIKFKASQKSAKERK-----PSTSGKYVSDGCVLK-TRPRKLELRQLSTGS 55
Db 262 ELVGIQFENDLNEKAHKNVSTPTIPSG--DEGDGCVIQVTKRNTMENSTLTPSV 319
QY 56 SSRANIRNSSANLMAKRVIR 79
Db 320 CTMRDARINNSEAKLMAKRVIR 343
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RESULT 7
GASR HUMAN
ID _GASR_HUMAN STANDARD; PRT; 447 AA.
AC P32239;
DT 01-OCT-1993 (Rel. 27, Created)
DT 01-OCT-1993 (Rel. 27, Last sequence update)
DT 15-MAR-2004 (Rel. 43, Last annotation update)
DE CCKBR/cholecystokinin type B receptor (CCK-B receptor) (CCK-BR).
GN CCKBR OR CCKRB
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Brain;
RC MEDLINE=93216795; PubMed=7681836;
RA Lee Y.-M., Beinborn M., McBride E.W., Lu M., Kolakowski L.F. Jr.,
RA Kopin A.S.;
RT "The human brain cholecystokinin-B/gastrin receptor. Cloning and
RT characterization."
RL J. Biol. Chem. 268:8164-8169(1993).
RN [2]
RP SEQUENCE FROM N.A.
RC TISSUE=Brain;
RC MEDLINE=93080572; PubMed=1280419;
RA Pisegna J.R., de Weerth A., Huppi K., Wank S.A.;
RT "Molecular cloning of the human brain and gastric cholecystokinin
RT receptor: structure, functional expression and chromosomal
RT localization."
RL Biochem. Biophys. Res. Commun. 189:296-303(1992).
RN [3]
RP SEQUENCE FROM N.A.
RC TISSUE=Placenta;
RC MEDLINE=94022320; PubMed=8415658;
RA Song I., Brown D.R., Wiltshire R.N., Gantz I., Trent J.M.,
RA Yamada T.;
RT "The human gastrin/cholecystokinin type B receptor gene: alternative
RT splice donor site in exon 4 generates two variant mRNAs."
RL Proc. Natl. Acad. Sci. U.S.A. 90:9085-9089(1993).
RN [4]
RP SEQUENCE FROM N.A.
RC TISSUE=Brain;
RC MEDLINE=93352657; PubMed=8349705;
RA Ito M., Matsui T., Taniguchi T., Tsukamoto T., Murayama T., Arima N.,
RA Nakata H., Chiba T., Chihara K.;
RT "Functional characterization of a human brain cholecystokinin-B
RT receptor. A trophic effect of cholecystokinin and gastrin."
RL J. Biol. Chem. 268:18300-18305(1993).
RN [5]
RP SEQUENCE FROM N.A.
RC TISSUE=temporal cortex;
RC Tate S.N., Gray J., Denyer J., Stolz M., Foord S., Lee M.G.;
RA Submitted (MAR-1996) to the EMBL/GenBank/DBJ databases.
RN [6]
RP SEQUENCE FROM N.A.
RC TISSUE=Brain;
RC Kopatz S.A., Aronstam R.S., Sharma S.V.;
RT "cDNA clones of human proteins involved in signal transduction
RT sequenced by the Guthrie cDNA resource center (www.cdna.org).";
RL Submitted (JUN-2003) to the EMBL/GenBank/DBJ databases.
CC -1- FUNCTION: Receptor for gastrin and cholecystokinin. The CCK-B
CC receptors occur throughout the central nervous system where they
CC modulate anxiety, analgesia, arousal, and neuroleptic activity.
CC This receptor mediates its action by association with G proteins
CC that activate a phosphatidylinositol-calcium second messenger
CC system.
CC -1- SUBCELLULAR LOCATION: Integral membrane protein.
CC -1- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.
CC
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DR EMBL; M99418; AAA40925.1; -.
DR PIR; A46195;
DR InterPro; IPR000276; GPCR_Rhodpsn.
DR Pfam; PF00001; 7tm_1; 1.
DR PRINTS; PR00237; GPCRHHODPSN.
DR PROSITE; PS00237; G-PROTEIN RECF F1_1; 1.
DR PROSITE; PS0262; G-PROTEIN RECF F1_2; 1.
KW G-protein coupled receptor; Transmembrane; Glycoprotein;
KW Lipoprotein; Palmitate.
FT DOMAIN 1 57 EXTRACELLULAR (POTENTIAL).
FT TRANSMEM 58 79 1 (POTENTIAL).
FT DOMAIN 80 87 CYTOPLASMIC (POTENTIAL).
FT TRANSMEM 88 109 2 (POTENTIAL).
FT DOMAIN 110 131 EXTRACELLULAR (POTENTIAL).
FT TRANSMEM 132 150 3 (POTENTIAL).
FT DOMAIN 151 170 CYTOPLASMIC (POTENTIAL).
FT TRANSMEM 171 189 4 (POTENTIAL).
FT DOMAIN 190 219 EXTRACELLULAR (POTENTIAL).
FT TRANSMEM 220 242 5 (POTENTIAL).
FT DOMAIN 243 338 CYTOPLASMIC (POTENTIAL).
FT TRANSMEM 339 360 6 (POTENTIAL).
FT DOMAIN 361 378 EXTRACELLULAR (POTENTIAL).
FT TRANSMEM 379 399 7 (POTENTIAL).
FT DOMAIN 400 452 CYTOPLASMIC (POTENTIAL).
FT CARBOHYD 7 7 N-LINKED (GLCNAC. .) (POTENTIAL).
FT CARBOHYD 30 30 N-LINKED (GLCNAC. .) (POTENTIAL).
FT CARBOHYD 36 36 N-LINKED (GLCNAC. .) (POTENTIAL).
FT DISULFID 127 205 BY SIMILARITY.
FT LIPID 413 413 S-palmitoyl cysteine (By similarity).
FT DOMAIN 221 226 POLY-LEU.
SQ SEQUENCE 452 AA; 48956 MW; 006D811A6AA065C6 CRC64;

Query Match 25.2%; Score 98.5; DB 1; Length 452;
Best Local Similarity 30.8%; Pred. No. 0.0033;
Matches 30; Conservative 14; Mismatches 29; Indels 27; Gaps 4;

QY 2 ELYQGIKFASQKSAKER-----KPSTTSQKYEEDSDGCVLK 39
DB 244 ELYLGLHFDGNDSEFQSRNQGGLPGGAPGVHONGCRPVTISVAG--EDSDGCVQ 301
QY 40 TRPPRKLELRQISTGSSSRANRIRNSSAANLMAKRVIR 79
DB 302 L-PRSRLEMTLTTPPGVPGRPNQ--AKLAKRVVR 338

RESULT 11
GASR_BOVIN STANDARD; PRT; 454 AA.
AC P79266;
DT 15-JUL-1998 (Rel. 36, Created)
DT 15-JUL-1998 (Rel. 36, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Gastrin/cholecystokinin type B receptor (CCR-B receptor) (CCR-BR).
GN CCKBR.
OS Bos taurus (Bovine).
OC Eukaryota; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Bovidae; Bovinae; Bos.
OX NCBI_TaxID=9913;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Pancreas;
RX MEDLINE=97003869; PubMed=8851180;
RA Dufréne M., Escriveau C., Clerc P., le Huerou-Luron I., Prats H.,
RA Bertrand V., le Meuth V., Guilloteau P., Vaysses N., Fourmy D.;
RT "Molecular cloning, developmental expression and pharmacological
RT characterization of the CCKB/gastrin receptor in the calf pancreas.";
RL Eur. J. Pharmacol. 297:165-179(1996).
CC -!- FUNCTION: Receptor for gastrin and cholecystokinin. The CCK-B
CC receptors occur throughout the central nervous system where they
CC modulate anxiety, analgesia, arousal, and neuroleptic activity.
CC This receptor mediates its action by association with G proteins
CC that activate a phosphatidylinositol-calcium second messenger
```



RA Blandizzi C., Song I., Yamada T.;  
 RT "Molecular cloning and structural analysis of the rabbit gastrin/CKBR  
 RL Biochem. Biophys. Res. Commun. 202:947-953(1994).  
 CC -!- FUNCTION: Receptor for gastrin and cholecystokinin. The CKK-B  
 CC receptors occur throughout the central nervous system where they  
 CC modulate anxiety, analgesia, arousal, and neuroleptic activity.  
 CC This receptor mediates its action by association with G proteins  
 CC that activate a phosphatidylinositol-calcium second messenger  
 CC system.  
 CC -!- SUBCELLULAR LOCATION: Integral membrane protein.  
 CC -!- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.  
 CC  
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 CC  
 DR EMBL; L31548; AAA31194.1; -  
 DR EMBL; L31547; AAA31194.1; JOINED.  
 DR PIR; JC2459; JC2459.  
 DR HSP; P02699; 1F88.  
 DR InterPro; IPR000276; GPCR\_Rhodopsn.  
 DR Pfam; PF00001; 7tm1.1;  
 DR PRINTS; PR00237; GPCRHHODPSN.  
 DR PROSITE; PS00237; G\_PROTEIN\_RECP\_F1\_1; 1.  
 DR PROSITE; PS0262; G\_PROTEIN\_RECP\_F1\_2; 1.  
 KW G-protein coupled receptor; Transmembrane; Glycoprotein;  
 KW Lipoprotein; Palmitate.  
 FT DOMAIN 1 55  
 FT TRANSSEM 56 77  
 FT DOMAIN 78 85  
 FT TRANSSEM 86 107  
 FT DOMAIN 108 129  
 FT TRANSSEM 130 148  
 FT DOMAIN 149 168  
 FT TRANSSEM 169 187  
 FT DOMAIN 188 217  
 FT TRANSSEM 218 240  
 FT DOMAIN 241 338  
 FT TRANSSEM 339 360  
 FT DOMAIN 361 378  
 FT TRANSSEM 379 399  
 FT DOMAIN 400 452  
 FT CARBOHYD 7 7  
 FT CARBOHYD 28 28  
 FT CARBOHYD 34 34  
 FT DISULFID 125 203  
 FT LIPID 413 413  
 SQ SEQUENCE 452 AA; 48730 MW; E0716FC1D938870 CRC64;  
 Query Match 23.4%; Score 91.5; DB 1; Length 452;  
 Best Local Similarity 29.1%; Pred. No. 0.018;  
 Matches 30; Conservative 15; Mismatches 27; Indels 31; Gaps 5;  
 QY 2 ELYQGIKFEASQKSAXER-----KPTSSSGKYEVSDCYL- 38  
 DB 242 EYLGLRFDSDSSESQSGQGLPGGAPGVHQRCPPEAGLAG--EDGDGCVYQ 299  
 QY 39 --KTRPRKLELRSLTGSSRRANRIRNSNSAAMAKKRVIR 79  
 DB 300 LPRSRP--ALELSALTAIPISGPGGPR--PAQAKLLAKKRVIR 338  
 RESULT 13  
 ID\_GASR\_CANFA STANDARD; PRT; 453 AA.  
 AC P30552; 046376;  
 DT 01-APR-1993 (Rel. 25, Created)  
 DT 01-APR-1993 (Rel. 25, Last sequence update)

DT 10-OCT-2003 (Rel. 42, Last annotation update)  
 DE Gastrin/cholecystokinin type B receptor (CKK-B receptor) (CKK-BR).  
 GN CCKBR.  
 OS Canis familiaris (Dog).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.  
 OX NCBI\_TaxID=9615;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RC TISSUE=Parietal cell;  
 RX MEDLINE=92228835; PubMed=1373504;  
 RA Kopin A.S., Lee Y.-M., McBride E.W., Miller L.J., Lu M., Lin H.Y.,  
 RA Koliakowski L.F. Jr., Beinborn M.;  
 RT "Expression cloning and characterization of the canine parietal cell  
 RT gastrin receptor.";  
 RL Proc. Natl. Acad. Sci. U.S.A. 89:3605-3609(1992).  
 RN [2]  
 RP SEQUENCE FROM N.A.  
 RA Song I., Blandizzi C., Brown D.R., Kang D.H., Todisco A., Delvalle J.,  
 RA del Tacca M., Owyang C., Yamada T.;  
 RT "Molecular cloning and structural analysis of the canine gastrin/CKK-B  
 RT receptor gene.";  
 RL Submitted (DEC-1997) to the EMBL/GenBank/DBJ databases.  
 CC -!- FUNCTION: Receptor for gastrin and cholecystokinin. The CKK-B  
 CC receptors occur throughout the central nervous system where they  
 CC modulate anxiety, analgesia, arousal, and neuroleptic activity.  
 CC This receptor mediates its action by association with G proteins  
 CC that activate a phosphatidylinositol-calcium second messenger  
 CC system.  
 CC -!- SUBCELLULAR LOCATION: Integral membrane protein.  
 CC -!- TISSUE SPECIFICITY: Parietal cells, pancreas, brain and  
 CC various neoplastic tissues.  
 CC -!- SIMILARITY: Belongs to family 1 of G-protein coupled receptors.  
 CC  
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 CC  
 DR EMBL; M87834; AAA30847.1; -  
 DR EMBL; AD001537; AAB87706.1; -  
 DR PIR; S32817; S32817.  
 DR HSP; P02699; 1F88.  
 DR InterPro; IPR000276; GPCR\_Rhodopsn.  
 DR Pfam; PF00001; 7tm1.1;  
 DR PRINTS; PR00237; GPCRHHODPSN.  
 DR PROSITE; PS00237; G\_PROTEIN\_RECP\_F1\_1; 1.  
 DR PROSITE; PS0262; G\_PROTEIN\_RECP\_F1\_2; 1.  
 KW G-protein coupled receptor; Transmembrane; Glycoprotein;  
 KW Lipoprotein; Palmitate; Phosphorylation.  
 FT DOMAIN 1 57  
 FT TRANSSEM 58 79  
 FT DOMAIN 80 87  
 FT TRANSSEM 88 109  
 FT DOMAIN 110 131  
 FT TRANSSEM 132 150  
 FT DOMAIN 151 170  
 FT TRANSSEM 171 189  
 FT DOMAIN 190 220  
 FT TRANSSEM 221 243  
 FT DOMAIN 244 339  
 FT TRANSSEM 340 361  
 FT DOMAIN 362 379  
 FT TRANSSEM 380 400  
 FT DOMAIN 401 453  
 FT CARBOHYD 7 7  
 FT CARBOHYD 30 30  
 FT CARBOHYD 36 36  
 FT DISULFID 127 206  
 FT LIPID 414 414  
 S-palmitoyl cysteine (By similarity).

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SQ SEQUENCE 453 AA; 48518 MW; 0FAEB7B994B44E1F CRC64;
Query Match 21.9%; Score 85.5; DB 1; Length 453;
Best Local Similarity 28.3%; Pred. No. 0.08; 32; Indels 25; Gaps 4;
Matches 28; Conservative 14; Mismatches 32; Indels 25; Gaps 4;

QY 2 ELYQGKIFEASQKSAKER-----KPSVTSSGKYEDSDGCVLK-T 40
| | | | | : | | | | | : | | | | | : | | | | | :
| | | | | : | | | | | : | | | | | : | | | | | :
Db 245 ELYGLRFDSDSESRVRSQGLRGAGPGAPPNGSCFPEGGLAG--EDGDCVQLP 302

QY 41 RPRKLELROLSTGSSSRNIRNSAANLMAKKVR 79
| | | | | : | | | | | : | | | | | : | | | | | :
| | | | | : | | | | | : | | | | | : | | | | | :
Db 303 RSRQTLSELTAPTPGPGGPRPYQ--AKLAKRVR 339

RESULT 14
ATRX_CABEL
ID ATRX_CABEL STANDARD; PRT; 1359 AA.
AC Q9U7E0; O02061;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 15-MAR-2004 (Rel. 43, Last annotation update)
DE Transcriptional regulator ATRX homolog (X-linked nuclear protein-1).
GN XNP-1 OR B0041.7.
OS Caenorhabditis elegans.
OC Eukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditoidea;
OC Rhabditidae; Peloderinae; Caenorhabditis.
OX NCBI_TaxID=6239;
RN [1]
SEQUENCE FROM N.A., AND CHARACTERIZATION.
RX MEDLINE=99365296; PubMed=10433961;
RA Villard L., Fontes M., Ewbank J.J.;
RT "Characterization of xnp-1, a Caenorhabditis elegans gene similar to
the human XNP/ATR-X gene."
RL Gene 236:13-19 (1999).
RN [2]
SEQUENCE FROM N.A.
RC STRAIN=Bristol N2;
RA Fulton R., Wohldmann P.;
RL Submitted (JUN-1997) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: Could be a global transcriptional regulator. Modifies
gene expression by affecting chromatin (Potential).
CC -!- SUBCELLULAR LOCATION: Nuclear.
CC -!- SIMILARITY: Belongs to the SNF2/RAD54 helicase family.
CC -----
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CC -----
DR EMBL; AF134186; AAD55361.1; -.
DR EMBL; AF000196; AAC24256.1; -.
DR PIR; T34036; T34036.
DR WormPep; B0041.7; CE17314.
DR InterPro; IPR001410; DEAD.
DR InterPro; IPR001650; Helicase_C.
DR InterPro; IPR000330; SNF2_N.
DR Pfam; PF00271; Helicase_C; 1.
DR Pfam; PF00176; SNF2_N; 1.
DR SMART; SM00487; DEXDC; 1.
DR SMART; SM00490; HELIC; 1.
DR PROSITE; PS00690; DEAD_ATP_HELICASE; FALSE NEG.
KW DNA repair; Hydrolase; Helicase; Nuclear protein; ATP-binding;
KW DNA-binding.
FT NP_BIND 496 503 ATP (POTENTIAL).
FT SITE 636 639 DEAD BOX.
FT DOMAIN 67 70 POLY-ASP.
FT DOMAIN 266 272 POLY-GLU.
FT DOMAIN 276 281 POLY-LYS.
FT DOMAIN 372 375 POLY-LYS.
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FT DOMAIN 603 608 POLY-LYS.
FT DOMAIN 859 862 POLY-LYS.
FT CONFLICT 479 479 C -> F (IN REF. 2).
SQ SEQUENCE 1359 AA; 156191 MW; EB4342547D4F4B64 CRC64;

Query Match 18.7%; Score 73; DB 1; Length 1359;
Best Local Similarity 31.5%; Pred. No. 5.7;
Matches 23; Conservative 12; Mismatches 34; Indels 4; Gaps 2;

QY 8 KFEASQKSAKRPSTTSSGKYEDSD--GCYUKTPRPKLELRQLSTGSSSA---NRIR 63
| | | | | : | | | | | : | | | | | : | | | | | :
| | | | | : | | | | | : | | | | | : | | | | | :
Db 107 KKKVDQKKKKEKSKRTTSSSEDESDBEERQKKKKKKTKKQTSSSESESEBEKVK 166

QY 64 SNSSAANLMAKKR 76
| | | | | : | | | | | : | | | | | : | | | | | :
| | | | | : | | | | | : | | | | | : | | | | | :
Db 167 KSKNKEKSVKKR 179

RESULT 15
CMGA_PIG
ID CMGA_PIG STANDARD; PRT; 446 AA.
AC P04404;
DT 20-MAR-1987 (Rel. 04, Created)
DT 01-NOV-1990 (Rel. 16, Last sequence update)
DT 15-MAR-2004 (Rel. 43, Last annotation update)
DE Chromogranin A precursor (CgA) [Contains: Pancreastatin; Parastatin;
WE-14] (Fragment).
GN CHGA.
OS Sus scrofa (Pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
OX NCBI_TaxID=9823;
RN [1]
SEQUENCE FROM N.A.
RX MEDLINE=88196011; PubMed=2834189;
RA Iacangelo A.L., Fischer-Colbrie R., Koller K.J., Brownstein M.J.,
RA Eiden L.E.;
RT "The sequence of porcine chromogranin A messenger RNA demonstrates
chromogranin A can serve as the precursor for the biologically active
hormone, pancreastatin."
RL Endocrinology 122:2339-2341 (1988).
RN [2]
SEQUENCE OF 256-304.
RX MEDLINE=87065127; PubMed=3537810;
RA Tatamoto K., Bfendie S., Mutt V., Makk G., Feistner G.J.,
RA Barchas J.D.;
RT "Pancreastatin, a novel pancreatic peptide that inhibits insulin
secretion."
RL Nature 324:476-478 (1986).
RN [3]
SEQUENCE OF 363-377.
RX MEDLINE=93345362; PubMed=8344192;
RA Fascioto B.H., Trauss C.A., Greeley G.H., Cohn D.V.;
RT "Parastatin [porcine chromogranin A347-419], a novel chromogranin A-
derived peptide, inhibits parathyroid cell secretion."
RL Endocrinology 133:461-466 (1993).
RN [4]
SULFATION.
RX MEDLINE=90153941; PubMed=2105940;
RA Gorr S.U., Cohn D.V.;
RT "Secretion of sulfated and nonsulfated forms of parathyroid
chromogranin A (secretory protein-I).";
RL J. Biol. Chem. 265:3012-3016 (1990).
CC -!- FUNCTION: Pancreastatin strongly inhibits glucose induced insulin
release from the pancreas.
CC -!- FUNCTION: Parastatin inhibits low calcium-stimulated parathyroid
cell secretion.
CC -!- SUBCELLULAR LOCATION: Neuroendocrine and endocrine secretory
granules.
CC -!- PTM: O-glycosylated.
CC -!- PTM: Parathyroid CHGA is sulfated on tyrosine residues, whereas
adrenal CHGA seems to be mainly sulfated on oligosaccharide
residues.
CC
```



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GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: October 1, 2004, 16:34:09 ; Search time 39 Seconds  
(without alignments)  
639.127 Million cell updates/sec

Title: US-09-841-091B-20

Perfect score: 391

Sequence: 1 LELYQGIKFPASQKSAKER.....NRIRNSSAANLMAKRRVIR 79

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1017041 seqs, 315518202 residues

Total number of hits satisfying chosen parameters: 1017041

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

SPTREMBL\_25.\*

1: sp\_archaea.\*

2: sp\_bacteria.\*

3: sp\_fungi.\*

4: sp\_human.\*

5: sp\_invertebrate.\*

6: sp\_mammal.\*

7: sp\_mhc.\*

8: sp\_organelle.\*

9: sp\_phage.\*

10: sp\_plant.\*

11: sp\_rodent.\*

12: sp\_virus.\*

13: sp\_vertebrate.\*

14: sp\_unclassified.\*

15: sp\_rvrius.\*

16: sp\_bacteriap.\*

17: sp\_archaeap.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	284.5	72.8	436	11	Q9DBV6 mus musculu
2	284.5	72.8	436	11	Q8VCC7 mus musculu
3	138.5	35.4	436	13	Q7TIP8 gallus gall
4	112	28.6	90	4	Q9UBV1 homo sapien
5	112	28.6	396	4	O75824 homo sapien
6	112	28.6	396	4	Q92492 homo sapien
7	112	28.6	447	4	Q16144 homo sapien
8	103	26.3	453	11	Q8SKF6
9	101.5	26.0	296	11	P90333
10	101.5	26.0	316	11	P89000
11	101.5	26.0	450	11	P89005
12	98.5	25.2	381	11	Q63095
13	92.5	23.7	516	4	Q9NYK7
14	92.5	23.7	516	4	Q961C6
15	81.5	20.8	258	2	Q933Q6
16	74	18.9	225	5	Q9V6Q2 drosophila

17	74	18.9	225	5	Q7YUD5	O7yud5 drosophila
18	74	18.9	225	5	Q7YUD4	O7yud4 drosophila
19	73	18.7	585	5	Q8IG74	Q8ig74 caenorhabdi
20	71.5	18.3	213	5	Q8MVN1	Q8mwn1 boltenia vi
21	71.5	18.3	299	5	P91959	P91959 psammochinu
22	71.5	18.3	3102	5	O45614	O45614 caenorhabdi
23	71	18.2	91	5	Q9XYH9	Q9xyh9 leishmania
24	71	18.2	229	2	Q9S4J4	Q9s4j4 streptococc
25	71	18.2	246	2	Q9X6G6	Q9x6g6 streptococc
26	71	18.2	435	2	Q9X9C0	Q9x9c0 streptococc
27	70.5	18.0	204	3	Q8N1X6	Q8n1x6 neurospora
28	70.5	18.0	309	11	Q9D029	Q9d029 mus musculu
29	70.5	18.0	533	4	O14562	O14562 homo sapien
30	70.5	18.0	1045	5	Q9NKY1	Q9nky1 drosophila
31	70	17.9	1076	5	Q868M6	Q868m6 dugesia jap
32	70	17.9	1168	10	Q9LE81	Q9le81 arabidopsis
33	69.5	17.8	988	10	Q9FWV2	Q9fwv2 oryza sativ
34	69.5	17.8	988	10	Q7XD45	Q7xd45 oryza sativ
35	68.5	17.5	533	6	Q28708	Q28708 oryctolagus
36	68.5	17.5	580	5	Q9NAH6	Q9nah6 caenorhabdi
37	68.5	17.5	695	16	Q8EYK4	Q8eyk4 leptospira
38	68	17.4	509	5	Q861Y3	Q861y3 dictyosteli
39	68	17.4	1377	5	Q9VJ42	Q9vj42 drosophila
40	67.5	17.3	120	11	Q8R1S5	Q8r1s5 mus musculu
41	67.5	17.3	608	11	Q8BKA3	Q8bka3 mus musculu
42	67.5	17.3	672	10	Q9ZWB1	Q9zwb1 arabidopsis
43	67.5	17.3	1150	5	Q9W0H4	Q9w0h4 drosophila
44	67.5	17.3	1715	5	Q18264	Q18264 caenorhabdi
45	67	17.1	134	15	Q8UTV3	Q8utv3 human immun

## ALIGNMENTS

RESULT 1

Q9DBV6 PRELIMINARY; PRT; 436 AA.

AC Q9DBV6;  
DT 01-JUN-2001 (T-EMBLrel. 17, Created)  
DT 01-JUN-2001 (T-EMBLrel. 17, Last sequence update)  
DT 01-JUN-2003 (T-EMBLrel. 24, Last annotation update)  
DE Adult male lung cDNA, RIKEN full-length enriched library,  
DE clone:1200012013, full insert sequence.  
GN CCKAR.  
OS Mus musculus (Mouse).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.  
OX NCBI\_TaxID=10090;  
RN [1]  
RP SEQUENCE FROM N.A.  
RC STRAIN=C57BL/6J; TISSUE=Lung;  
RX MEDLINE=21085660; PubMed=11217851;

RA Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,  
RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,  
RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamana I.,  
RA Saito T., Okazaki Y., Gojibori T., Bono H., Kasukawa T., Saito R.,  
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,  
RA Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,  
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,  
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,  
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Bares G.,  
RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,  
RA Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,  
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,  
RA Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombarto N.,  
RA Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,  
RA Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,  
RA Suzuki H., Toyooka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,  
RA Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohsaki S.,  
RA Hayashizaki Y.;  
RT "Functional annotation of a full-length mouse cDNA collection."  
RL Nature 409:685-690(2001).  
DR EMBL; AK004730; BAB23512.1; -.

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DR HSSP; P02699; 1F88.
DR MGD; MGI:99478; Cckar.
DR GO; GO:0016021; C:integral to membrane; IEA.
DR GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
DR GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; IEA.
DR InterPro; IPR00276; GPCR Rhodpsn.
DR Pfam; PF00001; 7tm 1; 1.
DR PRINTS; PR00237; GPCR RHODPSN.
DR PROSITE; PS00237; G_PROTEIN_RECP_F1_1; 1.
DR PROSITE; PS0262; G_PROTEIN_RECP_F1_2; 1.
SQ SEQUENCE 436 AA; 4846 MW; 49B4AD57F080F08A CRC64;

Query Match 72.8%; Score 284.5; DB 11; Length 436;
Best Local Similarity 71.6%; Pred. No. 1.5e-24;
Matches 63; Conservative 10; Mismatches 6; Indels 9; Gaps 3;

QY 1 LELYQIKFEASOKSAKERKPKST-----TSSGKYEDSDGCL-KTRPPRKLELRQLS 52
DB 234 LELYQIKFDASOKSAKERKLSGGGGGGSSSSRYEDSDGCLQKSRPPRKLELRQLS 293

QY 53 TGSS-SRANRIRSNSSAANLMAKRVIR 79
DB 294 TSSGGRINRIRSSGAANLIARVIR 321

RESULT 2
Q8VCC7 PRELIMINARY; PRT; 436 AA.
ID Q8VCC7
AC Q8VCC7
DT 01-MAR-2002 (TReMBLrel. 20, Created)
DT 01-MAR-2002 (TReMBLrel. 20, Last sequence update)
DT 01-JUN-2003 (TReMBLrel. 24, Last annotation update)
DE Cholecystokinin A receptor.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Euthera; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RA Strausberg R.;
RC TISSUE=Kidney;
RL Submitted (JAN-2002) to the EMBL/GenBank/DBJ databases.
DR EMBL; BC020534; AAH20534.1; -.
DR MGD; MGI:99478; Cckar.
DR GO; GO:0016021; C:integral to membrane; IEA.
DR GO; GO:0004872; F:receptor activity; IEA.
DR GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
DR GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; IEA.
DR InterPro; IPR00276; GPCR Rhodpsn.
DR Pfam; PF00001; 7tm 1; 1.
DR PRINTS; PR00237; GPCR RHODPSN.
DR PROSITE; PS00237; G_PROTEIN_RECP_F1_1; 1.
DR PROSITE; PS0262; G_PROTEIN_RECP_F1_2; 1.
KW Receptor.
SQ SEQUENCE 436 AA; 48396 MW; FD35D8453B792F79 CRC64;

Query Match 72.8%; Score 284.5; DB 11; Length 436;
Best Local Similarity 71.6%; Pred. No. 1.5e-24;
Matches 63; Conservative 10; Mismatches 6; Indels 9; Gaps 3;

QY 1 LELYQIKFEASOKSAKERKPKST-----TSSGKYEDSDGCL-KTRPPRKLELRQLS 52
DB 234 LELYQIKFDASOKSAKERKLSGGGGGGSSSSRYEDSDGCLQKSRPPRKLELRQLS 293

QY 53 TGSS-SRANRIRSNSSAANLMAKRVIR 79
DB 294 TSSGGRINRIRSSGAANLIARVIR 321

RESULT 3
Q7TIP8 PRELIMINARY; PRT; 436 AA.
ID Q7TIP8
AC Q9UBV1 PRELIMINARY; PRT; 90 AA.
ID Q9UBV1
AC Q9UBV1
DT 01-MAY-2000 (TReMBLrel. 13, Created)
DT 01-MAY-2000 (TReMBLrel. 13, Last sequence update)
DT 01-MAR-2001 (TReMBLrel. 16, Last annotation update)
DE Cholecystokinin B/gastrin receptor (Fragment).
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Euthera; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=94036800; PubMed=8221657;
RA Sethi T., Herget T., Wu S.V., Walsh J.H., Rozengurt E.;
RT "CCA and CCKB receptors are expressed in small cell lung cancer lines
and mediate Ca2+ mobilization and clonal growth.";
RL Cancer Res. 53:5208-5213(1993)
SQ SEQUENCE 90 AA; 9547 MW; 336A0F09E7C0857B CRC64;

Query Match 28.6%; Score 112; DB 4; Length 90;
Best Local Similarity 33.7%; Pred. No. 2.4e-05;
Matches 34; Conservative 14; Mismatches 19; Indels 34; Gaps 6;

QY 2 ELYQGIKFEASOKSAKERKPKST-----KPSSTSSGKYEDSDGCL---KTR 41
DB 1 ELYGLRFDGSDSDSQSRVNRNQGGLPGAVHONGRCRPTGAVG--EDSDGCVQLPRSR 58

QY 42 PPRKLELRQLST---GSSSRANRIRSNSSAANLMAKRVIR 79
DB 59 P-ALELTALTAPGSGSRPTQ-----AKLLAKRVIR 90
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RL Ann. N. Y. Acad. Sci. 713:283-297(1994).
DR EMBL; S70057; AAB30766.2; -.
DR PIR; I65231; I65231.
DR HSSP; P02699; 1F88.
DR GO; GO:0016021; C:integral to membrane; IEA.
DR GO; GO:0004872; F:receptor activity; IEA.
DR GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
DR GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; IEA.
DR InterPro; IPR000276; GPCR_Rhodopsin.
DR Pfam; PF00001; 7tm_1; 1.
DR PRINTS; PR00237; GPCRHHODOPSN.
DR PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
DR PROSITE; PS0262; G_PROTEIN_RECEP_F1_2; 1.
DR KW Receptor.
DR SEQUENCE 447 AA; 48418 MW; E3DAE5EE1F0PB99 CRC64;

Query Match 28.6%; Score 112; DB 4; Length 447;
Best Local Similarity 33.7%; Pred. No. 0.00014;
Matches 34; Conservative 14; Mismatches 19; Indels 34; Gaps 6;

QY 2 ELYQGIKEASQKSAKER-----KPSSTSSGKYEDSDGCVL---KTR 41
DB 244 ELYGLRFGDSDSDQSRVNRQGLPGAVHQNGRCRPETGAVGK--DSDGCVQLPRSR 301

QY 42 PRKLEQLRLST---GSSSRANRIRNSAANLMAKRVIR 79
DB 302 P--ALBELTALTAPGSGSRPTQ-----AKLLAKRVVR 333

RESULT 8
Q8BKF6 PRELIMINARY; PRT; 453 AA.
AC Q8BKF6;
DT 01-MAR-2003 (TrEMBLrel. 23, Created)
DT 01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DR Gastrin/cholecystokinin type B receptor.
GN CCKBR.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=C57BL/6J; TISSUE=Eye;
RX MEDLINE=22354683; PubMed=12466851;
RA The FANTOM Consortium.
RA the RIKEN Genome Exploration Research Group Phase I & II Team;
RT "Analysis of the mouse transcriptome based on functional annotation of
RT 60,770 full-length cDNAs."
RL Nature 420:563-573(2002).
DR EMBL; AK053307; BAC35337.1; -.
DR MGD; MGI:99479; Cckbr.
DR GO; GO:0016021; C:integral to membrane; IEA.
DR GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
DR GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; IEA.
DR InterPro; IPR000276; GPCR_Rhodopsin.
DR Pfam; PF00001; 7tm_1; 1.
DR PRINTS; PR00237; GPCRHHODOPSN.
DR PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
DR PROSITE; PS0262; G_PROTEIN_RECEP_F1_2; 1.
DR SEQUENCE 453 AA; 49143 MW; FCE07980A678250A CRC64;

Query Match 26.3%; Score 103; DB 11; Length 453;
Best Local Similarity 29.7%; Pred. No. 0.0016;
Matches 30; Conservative 16; Mismatches 27; Indels 28; Gaps 4;

QY 2 ELYQGIKEASQKSAKER-----KPSSTSSGKYEDSDGCVL 38
DB 244 ELYGLRFGDNDSDQSRVNRQGLPGGAAPGVHQNGCRHVTSLTG--EDSDGCVL 301

QY 39 KTRPPKLEQLRLSTGSSSRANRIRNSAANLMAKRVIR 79
DB 159 RSRLEMTLTTPPGPG---LASANQAKLLAKRVVR 192

Ann. N. Y. Acad. Sci. 713:283-297(1994).
DR EMBL; S70057; AAB30766.2; -.
DR PIR; I65231; I65231.
DR HSSP; P02699; 1F88.
DR GO; GO:0016021; C:integral to membrane; IEA.
DR GO; GO:0004872; F:receptor activity; IEA.
DR GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
DR GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; IEA.
DR InterPro; IPR000276; GPCR_Rhodopsin.
DR Pfam; PF00001; 7tm_1; 1.
DR PRINTS; PR00237; GPCRHHODOPSN.
DR PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
DR PROSITE; PS0262; G_PROTEIN_RECEP_F1_2; 1.
DR SEQUENCE 447 AA; 48418 MW; E3DAE5EE1F0PB99 CRC64;

Query Match 28.6%; Score 112; DB 4; Length 447;
Best Local Similarity 33.7%; Pred. No. 0.00014;
Matches 34; Conservative 14; Mismatches 19; Indels 34; Gaps 6;

QY 2 ELYQGIKEASQKSAKER-----KPSSTSSGKYEDSDGCVL---KTR 41
DB 244 ELYGLRFGDSDSDQSRVNRQGLPGAVHQNGRCRPETGAVGK--DSDGCVQLPRSR 301

QY 42 PRKLEQLRLST---GSSSRANRIRNSAANLMAKRVIR 79
DB 302 P--ALBELTALTAPGSGSRPTQ-----AKLLAKRVVR 333

RESULT 9
P90333 PRELIMINARY; PRT; 296 AA.
AC P90333;
DT 01-MAY-1997 (TrEMBLrel. 03, Created)
DT 01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Gastrin/cholecystokinin receptor (fragment).
OS Pracomys natalensis (African soft-furred rat) (Mastomys natalensis).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
OC Mastomys.
OX NCBI_TaxID=10112;
RN [1]
RP SEQUENCE FROM N.A.
RA Luque E.A., Tang L.H., Modlin I.M.;
RL Submitted (FEB-1996) to the EMBL/GenBank/DBJ databases.
DR EMBL; U49833; AAB41676.1; -.
DR GO; GO:0016021; C:integral to membrane; IEA.
DR GO; GO:0004872; F:receptor activity; IEA.
DR GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
DR GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; IEA.
DR InterPro; IPR000276; GPCR_Rhodopsin.
DR Pfam; PF00001; 7tm_1; 1.
DR PRINTS; PR00237; GPCRHHODOPSN.
DR PROSITE; PS0262; G_PROTEIN_RECEP_F1_2; 1.
DR KW Receptor.
FT NON_TER 1 296
FT NON_TER 296 296
SQ SEQUENCE 296 AA; 32736 MW; 320FF55B102DB4C2 CRC64;

Query Match 26.0%; Score 101.5; DB 11; Length 296;
Best Local Similarity 28.9%; Pred. No. 0.0015;
Matches 28; Conservative 18; Mismatches 28; Indels 23; Gaps 4;

QY 2 ELYQGIKEASQKSAKER-----KPSSTSSGKY-----EDSDGCVLKTRP 42
DB 100 ELYGLRFGDNDSDQSRVNRQGLPGTAPGVHQNGCRHVTVAGEDNDGCVQL-P 158

QY 43 PRKLEQLRLSTGSSSRANRIRNSAANLMAKRVIR 79
DB 159 RSRLEMTLTTPPGPG---LASANQAKLLAKRVVR 192

RESULT 10
P89000 PRELIMINARY; PRT; 316 AA.
AC P89000;
DT 01-MAY-1997 (TrEMBLrel. 03, Created)
DT 01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Gastrin/cholecystokinin receptor (fragment).
OS Pracomys natalensis (African soft-furred rat) (Mastomys natalensis).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
OC Mastomys.
OX NCBI_TaxID=10112;
RN [1]
RP SEQUENCE FROM N.A.
RA Luque E.A., Tang L.H., Modlin I.M.;
RL Gastrin Receptors in Mastomys Natalensis.";
DR EMBL; U48614; AAB41829.1; -.
DR GO; GO:0016021; C:integral to membrane; IEA.
DR GO; GO:0004872; F:receptor activity; IEA.
DR GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.
DR GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; IEA.
DR InterPro; IPR000276; GPCR_Rhodopsin.
DR Pfam; PF00001; 7tm_1; 1.
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